

PVM-1440QM/1442QM/1444QM

SERVICE MANUAL

AEP Model

PVM-1440QM

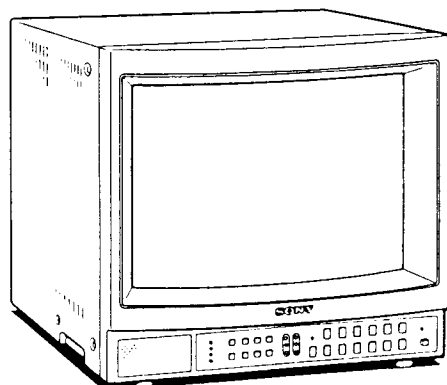
Chassis No. SCC-C57A-A

PVM-1442QM

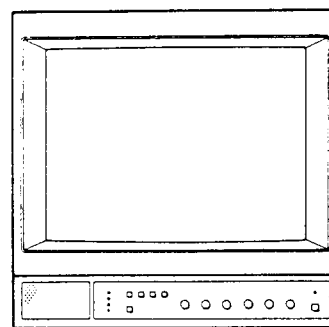
Chassis No. SCC-C56A-A

PVM-1444QM

Chassis No. SCC-C55A-A



(PVM-1440QM/1442QM)



(PVM-1444QM)

SPECIFICATIONS

Video signal

Frequency response

Line input: More than 7 MHz (−3 dB)
Y/C input: More than 8 MHz (−3 dB)
Component input (Y/R-Y/B-Y): More than 8 MHz (−3 dB)
R, G, B input (analog): More than 9 MHz (−3 dB)

Chrominance subcarrier attenuation

3.58 MHz: Less than −30 dB (comb filter)
4.43 MHz: Less than −36 dB (trap filter)

Band pass

3.58 MHz: 2 MHz equiband
4.43 MHz: 2 MHz equiband

Chrominance luminance time error

Composite: Less than ±100 ns
Y/C Video: Less than ±50 ns
Component: Less than ±50 ns

Aperture correction

−4.5 to +6.5 dB (at 4.5 MHz)

Synchronization

AFC time constant: 1 msec

Line pull range

Horizontal: ±500 Hz
Vertical: 8 Hz

Picture performance

Normal scan: 7% overscan of CRT effective screen area
Under scan: 3% underscan of CRT effective screen area

H. linearity error: Less than 4%

V. linearity error: Less than 5%

Convergence: Central area: 0.6 mm
Peripheral area: 0.8 mm

Raster size stability

H: 1.0%, V: 1.5%

High voltage regulation

3%

Audio output

0.6 W (Max.)

CRT

PVM-1444QM/PVM-1442QM: EBU
PVM-1440QM: P.22

Chromaticity coordinates (EBU only)

	X	Y
Red	0.640	0.330
Green	0.290	0.600
Blue	0.150	0.060

(tolerance ±0.01)

Color temperature

6,500°K/9,300°K (+8MPCD), selectable

AC regulation range

220 - 240 V AC, 50/60 Hz

Power consumption

Approx. 75 Wh

Inputs

For all models

VIDEO IN: BNC connector

AUDIO IN: phono jack

VTR: 8-pin connector

Y/C-INPUT

VIDEO: 4-pin connector

AUDIO: phono jack

PVM-1444QM only

EXT SYNC: BNC connector

composite sync 1-4 Vp-p, negative, 75 ohms terminated, automatically released when cable is connected to the output connector.

ANALOG RGB/COMPONENT: BNC connector

R, G, B and Y channels: 0.7 Vp-p, ±6 dB, non composite

R-Y and B-Y channels: 0.525 Vp-p, ±6 dB

(Standard color bar signal of 75-percent chrominance)

When the composite signal is fed to the G or Y channels, the

monitor can be activated in the internal sync mode.

75 ohms terminated, automatically released when a cable is connected to the output connector.

CTRL S: Minijack

PVM-1442QM only

EXT SYNC: BNC connector

composite sync 1-4 Vp-p, negative, 75 ohms terminated, automatically released when cable is connected to the output connector.

ANALOG RGB: BNC connector

0.7 Vp-p, ±6 dB, non composite

75 ohms terminated, automatically released when cable is connected to the output connector.

DIGITAL RGB: 9-pin connector

CTRL S: Minijack

PVM-1440QM

ANALOG RGB signal through AV: 0.7 Vp-p, ±6 dB, non composite, 75 ohms terminated

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— Continued on next page —



TRINITRON® COLOR VIDEO MONITOR
SONY®

Outputs

For all models

VIDEO OUT: BNC connector
Loop-through
AUDIO OUT: Phono jack
Loop-through

PVM-1444QM only

EXT SYNC: BNC connector
Loop-through
ANALOG RGB/COMPONENT: BNC connector
Loop-through
CTRL S: Mini-jack
Loop-through

PVM-1442QM only

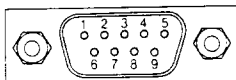
EXT SYNC: BNC connector
Loop-through
ANALOG RGB: BNC connector
Loop-through
CTRL S: Mini-jack
Loop-through

General

Dimensions Approx. 346 × 340 × 412 mm (w/h/d)
(13 3/4 × 13 3/4 × 16 1/4 inches)
Weight Approx. 16.5 kg (36 lb 6 oz)

Pin assignment

DIGITAL RGB connector (9-pin)



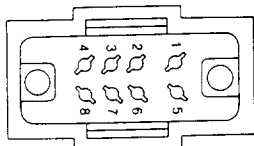
Pin No.	Signal	Signal level
1	GND (ground)	GND
2	GND for the signal	GND
3	Red input	Positive polarity (TTL level)
4	Green input	+
5	Blue input	+
6	Intensity	+
7	NC (no connection)	—
8	H-SYNC	Positive or negative polarity (TTL level)
9	V-SYNC	Same polarity as H-SYNC (TTL level)

Note

If the intensity function of Pin No. 6 is not used, set the internal switch on the Qd board to the B position, and connect the Pin No. 6 to the GND. With this setting, when the positive intensity signal synchronized to the characters on the screen is fed, the luminance of the characters will be increased.

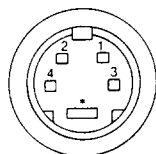
If the specific intensity function, such as that of an IBM microcomputer, is used, set the internal switch on the Qd board to the A position, and feed the intensity control signal to Pin No. 6.

VTR connector (8-pin)



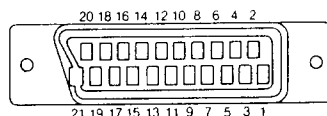
Pin No.	Signal	Description
1	Audio input	-5 dBs, high input impedance (more than 47 kilohms)
2	Video input	Composite 1 Vp-p, sync negative, 75 ohms
3	GND	GND
4	NC	—
5	GND	GND
6	GND	GND
7	GND	GND
8	GND	GND

Y/C (Y/C separate) INPUT connector (4-pin)



Pin No.	Signal	Description
1	Y-input	1 Vp-p, sync negative, 75 ohms
2	CHROMA sub-carrier-input	300 mVp-p, burst Delay time between Y and C: within 0±100 nsec., 75 ohms
3	GND for Y-input	GND
4	GND for CHROMA-input	GND
*	(Slot for internal switch)	Press the switch inside this slot. The signal from Y/C-INPUT connector has priority over the one from VTR (8-pin) connector.

AV (EURO-TV) connector (21-pin) -



Pin No.	Signal	Description
1	Audio output B (right)	Standard level: 0.5 Vrms Output impedance: Less than 1 k ohm *
2	Audio input B (right)	Standard level: 0.5 Vrms Input impedance: More than 10 k ohms *
3	Audio output A (left)	Standard level: 0.5 Vrms Output impedance: Less than 1 k ohm *
4	GND for audio	GND
5	GND for blue input	GND
6	Audio input A (left)	Standard level: 0.5 Vrms Input impedance: More than 10 k ohms *
7	Blue input	0.7 V \pm 3 dB, 75 ohms
8	Function select (AV control)	High state (9.5 - 12 V): Peri mode Low state (0 - 2 V): TV mode Input impedance: More than 10 k ohms Input capacitance: Less than 2 nF

Pin No.	Signal	Description
9	GND for green input	GND
10	NC	
11	Green input	(Same as Pin 7)
12	NC	
13	GND for red input	GND
14	GND for blanking input	GND
15	Red input	(Same as Pin 7)
16	Blanking input	High state (1 - 3 V) Low state (0 - 0.4 V) Input impedance: 75 ohms
17	GND for video output	GND
18	GND for video input	GND
19	Video output **	1 V \pm 3 dB, 75 ohms Sync: 0.3 V (\pm 3 dB)
20	Video input	1 V \pm 3 dB, 75 ohms Sync: 0.3 V (\pm 3 dB)
21	Common GND (plug, shield)	GND

* at 20 Hz - 20 kHz
 ** Outputs the video signal fed through the LINE A connector, when the AV input mode is selected.

Design and specifications subject to change without notice.


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WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

SECTION 1 GENERAL

1-1. FEATURES

This chart shows the various features which your model has (indicated as "Yes").

Features	PVM-1444QM	PVM-1442QM	PVM-1440QM
Automatic white balance circuit	Yes	Yes	Yes
EBU phosphor	Yes	Yes	No
Black-tinted Trinitron tube	No	No	Yes
Super Fine Pitch Trinitron picture tube	Yes	Yes	No
Analog RGB/component input/output	Yes	No	No
Analog RGB input/output	No	Yes	No
Digital RGB input (9-pin)	No	Yes	No
Y/C input (4-pin DIN)	Yes	Yes	Yes
VTR input (8-pin)	Yes	Yes	Yes
Control S input/output	Yes	Yes	No
Automatic release of BNC-type input connector termination	Yes	Yes	Yes
Color systems available	PAL, SECAM, NTSC ³⁵⁸ NTSC ⁴⁴³		
Comb filter	Yes	Yes	Yes
Blue only mode	Yes	Yes	Yes
Underscan mode	Yes	Yes	No
Horizontal/vertical delay mode	Yes	Yes	No
External sync input/output	Yes	Yes	No
Color temperature selector	Yes	Yes	Yes
Light-touch picture adjustment buttons	Yes	Yes	No
AV (EURO-TV) connector (21-pin)	No	No	Yes
EIA standard 19-inch rack mounting	Yes	Yes	Yes

Automatic white balance circuit

The automatic white balance circuit compensates for the beam distortion, secular distortion of the cathode-ray tube, etc., and always reproduces the same white display on the screen. This allows an extended use of the monitor.

Super Fine Pitch Trinitron picture tube

(PVM-1444QM/1442QM only)

The Super Fine Pitch Trinitron picture tube (0.25 mm aperture grill) gives high resolution picture. Horizontal resolution is more than 600 TV lines at the center of the picture. When used as a character display, up to 2,000 characters (80 characters/line × 25 lines) can be displayed with great clarity.

Analog RGB/component connector (PVM-1444QM only)

Analog RGB and component signals of a video equipment can be input through this connector. The signals are selected by the COMPO/RGB selector on the rear panel.

Analog RGB connector (PVM-1442QM only)

Analog RGB signal of a video equipment can be input through this connector.

Digital RGB input connector (PVM-1442QM only)

Digital RGB signal from a microcomputer can be input through this connector.

Y/C input connector

The video signal split into the chrominance signal (C) and the luminance signal (Y) can be input through this connector, eliminating the interference between the two signals which tends to occur in a composite video signal and assuring the video quality.

VTR input connector

When connected to a VTR having the 8-pin TV connector, video and audio signals can be fed through this connector with a single cable.

Control S connector (except PVM-1440QM)

When this connector is connected to the "control S" output of other equipment, the remote controls of the aperture, brightness, chroma, phase, contrast and volume settings are possible.

Automatic release of BNC-type connector termination

The BNC-type input connector is terminated at 75 ohms inside when the BNC-type output connector is open. When a cable is connected to the BNC-type output connector, the 75-ohm termination is automatically released, and the signal input through the IN connector is output from the corresponding OUT connector.

Four color systems available

The monitor can display PAL, SECAM, NTSC³⁵⁸ and NTSC⁴⁴³ signals. The appropriate color system is selected automatically.

* A signal of NTSC⁴⁴³ is obtained by playing back NTSC-recorded video cassettes with a video tape recorder/player especially designed for use with this system.

Comb Filter

When NTSC video signals are received, a comb filter activates to increase the resolution, resulting in fine picture detail without color spill or color noise.

Blue only mode

In the blue only mode, an apparent monochrome display is obtained with all three cathodes driven with a blue signal. This facilitates color saturation and phase adjustments and observation of VTR noise.

Underscan mode (except PVM-1440QM)

The signal normally scanned outside of the screen can be monitored in the underscan mode.

Note

The bright scanning lines which may appear on the top edge of the screen when the monitor is in the underscan mode are caused by an internal test signal, rather than the input signal.

Horizontal/vertical delay mode (except PVM-1440QM)

The horizontal and vertical sync signals can be checked simultaneously in the H/V delay mode.

External sync input (except PVM-1440QM)

When the EXT SYNC (or ANALOG/DIGITAL (EXT SYNC)) button is depressed, the monitor can be operated on the sync signal supplied from an external sync generator.

Color temperature selector

Color temperature of either 9,300°K or 6,500°K is selectable with the COLOR TEMP selector. For precise adjustment, use the BIAS and GAIN adjustment controls (except PVM-1440QM).

Light-touch picture adjustment buttons (except PVM-1440QM)

The aperture, brightness, chroma, phase, contrast and volume buttons can be adjusted by touching the buttons lightly. The adjusted settings will be stored in memory even when the monitor is turned off.

AV (EURO-TV) connector (PVM-1440QM only)

Analog RGB signals can be input through the 21-pin AV (EURO-TV) connector. This allows connection of peripheral equipments such as decoders.

Superimposition (PVM-1440QM only)

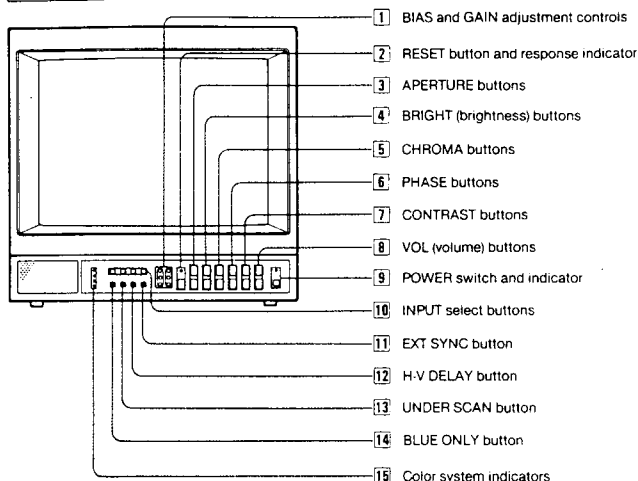
The data fed through the AV (EURO-TV) connector can be superimposed on the picture from the LINE A, LINE B or Y/C/VTR input.

EIA standard 19-inch rack mounting

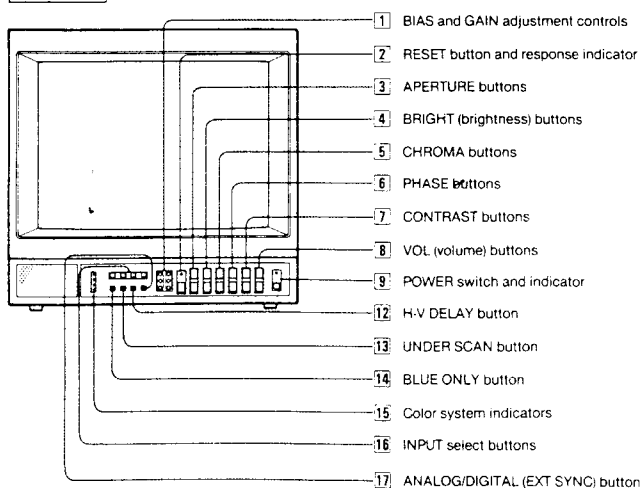
By using an optional MB-502A mounting bracket, the monitor can be mounted in an EIA standard 19-inch rack. An optional SLR-102 slide rail is also available. For details on mounting, see the appropriate instruction manual.

1-2. LOCATION AND FUNCTION OF PARTS AND CONTROLS

Front panel PVM-1444QM



Front panel PVM-1442QM



1 BIAS and GAIN adjustment controls

Used for white balance adjustment.
Gain and BIAS controls are provided for the R (red), G (green) and B (blue) screens.
BIAS: Adjust the white balance and brightness of the screen at the lowlight with these controls.
GAIN: Adjust the white balance and contrast of the screen at the highlight with these controls.

2 RESET button and response indicator

Press to return the PHASE, CHROMA, BRIGHT and APERTURE control settings to the factory set levels. The response indicator flashes when the above buttons or the RESET button is pressed.

3 APERTURE buttons

Press + for more sharpness or - for less.

4 BRIGHT (brightness) buttons

Press + for more brightness or - for less.

5 CHROMA buttons

Press + for more color intensity or - for less.

6 PHASE buttons

This button is effective only for the NTSC358 and NTSC443 color system.
Press GRN (green) to make the skin tones greenish or PUR (purple) to make them purplish.

Note

The APERTURE, CHROMA, PHASE control settings have no effect on the pictures of analog RGB or digital RGB signals.

7 CONTRAST buttons

Press + to make the contrast, color intensity and brightness stronger or - to make them weaker.

8 VOL (volume) buttons

Press + for more volume or - for less.

9 POWER switch and indicator

Depress to turn the monitor on.
The indicator will light up in green.
Press the switch again to turn the monitor off.

10 INPUT select buttons

Press to select the program to be monitored.
A: for a signal fed through the LINE A connectors.
B: for a signal fed through the LINE B connectors.
Y/C/VTR: for a signal fed through the Y/C-INPUT connectors or VTR connector.
When both the Y/C-INPUT and VTR connectors are connected to video equipment, the input signal fed through the Y/C-INPUT connector has priority over the one fed through the VTR connector.
ANALOG RGB/COMPONENT: for a signal fed through the ANALOG RGB/COMPONENT connectors.
For connection, refer to the explanation of ANALOG RGB/COMPONENT connectors

11 EXT SYNC (external sync) button

Normally keep this button released (INT). The monitor operates on the sync signal from the displayed composite video signal.
To operate the monitor on an external sync signal fed through the EXT SYNC connector on the rear panel, depress the button (EXT).

12 H-V DELAY button

Depress to observe the horizontal and vertical sync signals at the same time.
The horizontal sync signal is displayed in the left quarter of the screen; the vertical signal is displayed near the center of the screen.

13 UNDER SCAN button

Depress for underscanning. The display size is reduced by approximately 3% so that four corners of the raster are visible.

14 BLUE ONLY button

Depress to turn off the red and green signals. A blue signal is displayed as an apparent monochrome picture on the screen. This facilitates "chroma" and "phase" control adjustments and observation of VTR noise.

* "Phase" control adjustment is effective only for the NTSC signals

15 Color system indicators

The indicator of the color system being received lights up in red.

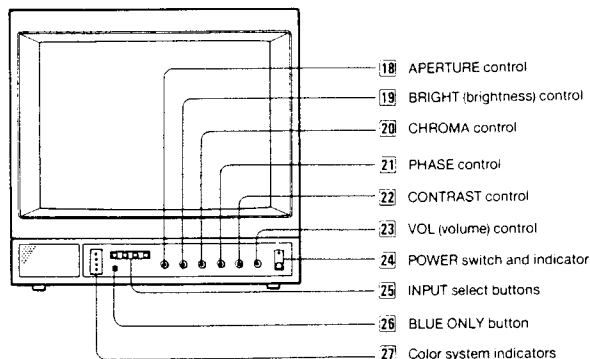
16 INPUT select buttons

Press to select the program to be monitored.
A: for a signal fed through the LINE A connectors.
B: for a signal fed through the LINE B connectors.
Y/C/VTR: for a signal fed through the Y/C-INPUT connectors or VTR connector.
When both the Y/C-INPUT and VTR connectors are connected to video equipment, the input signal fed through the Y/C-INPUT connector has priority over the one fed through the VTR connector.
RGB: for a signal fed through the ANALOG RGB connectors or DIGITAL RGB connector.

17 ANALOG/DIGITAL (EXT SYNC) button

This button functions as ANALOG/DIGITAL selector and EXT SYNC selector.
As ANALOG/DIGITAL selector
Depress to monitor a signal fed through the ANALOG RGB connectors.
Release to monitor a signal fed through the DIGITAL RGB connector.
For EXT SYNC selector
Depress to operate the monitor on an external sync signal fed through the EXT SYNC connector on the rear panel (EXT).
Release to operate the monitor on the sync signal from the displayed composite video signal (INT).

Front panel PVM-1440QM



18 APERTURE control

Turn toward + for more sharpness or toward - for less.

19 BRIGHT (brightness) control

Turn toward + for more brightness or toward - for less. Normally set this control at the center detent position.

20 CHROMA control

Turn toward + for more color intensity or toward - for less.

21 PHASE control

Turn toward GRN (green) to make the skin tones greenish or toward PUR (purple) to make them purplish.

Note

The APERTURE, CHROMA, PHASE control settings have no effect on the pictures input through the ANALOG RGB IN connector.

22 CONTRAST control

Turn toward + to make the contrast, color intensity and brightness stronger or toward - to make them weaker.

23 VOL (volume) control

Turn toward + for more volume or toward - for less.

24 POWER switch and indicator

Same as 9.

25 INPUT select buttons

Press to select the program to be monitored.

A: for a signal fed through the LINE A connectors.

B: for a signal fed through the LINE B connectors.

Y/CVTR: for a signal fed through the Y/C-INPUT

connectors or VTR connector.

When both the Y/C-INPUT and VTR connectors are connected to video equipment, the input signal fed through the Y/C-INPUT connector has priority over the one fed through the VTR connector.

AV: for a signal fed through the AV (EURO-TV) connector.

To superimpose the data fed through the AV (EURO-TV) connector over the picture being displayed:

1 Press A, B or Y/CVTR to display the picture on which the data is to be superimposed.

Be sure the SUPERIMPOSE selector on the rear panel is set to ON.

2 Press AV.

The data is superimposed over the picture.

26 BLUE ONLY button

Same as 14.

27 Color system indicators

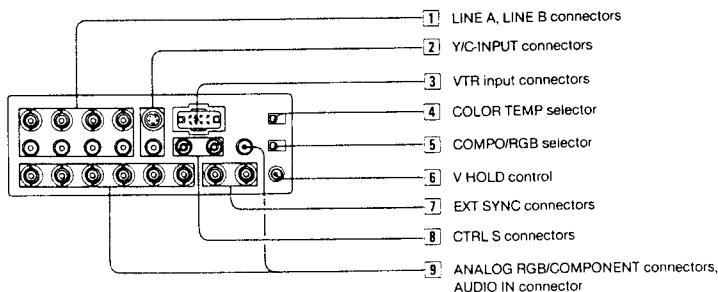
Same as 15.

Picture Adjustment Buttons

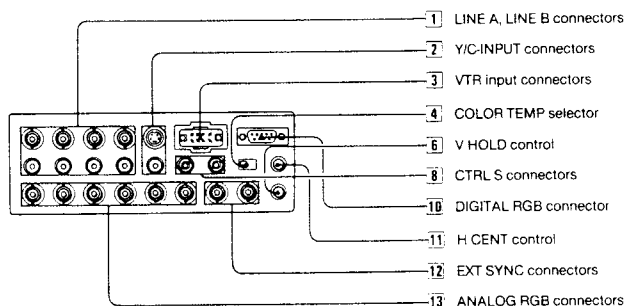
The picture adjustment buttons of each monitor operate in the following input mode (indicated as "Yes").

Model	Input mode	APERTURE	BRIGHT	CHROMA	PHASE	CONTRAST	VOL
PVM-1444QM	• LINE A, LINE B • Y/C • VTR	Yes	Yes	Yes	Yes (NTSC only)	Yes	Yes
	Analog RGB	No	Yes	No	No	Yes	Yes
	Component	Yes	Yes	Yes	No	Yes	Yes
	• LINE A, LINE B • Y/C • VTR	Yes	Yes	Yes	Yes (NTSC only)	Yes	Yes
PVM-1442QM	• Digital RGB • Analog RGB	No	Yes	No	No	Yes	No
	• LINE A, LINE B • Y/C • VTR	Yes	Yes	Yes	Yes (NTSC only)	Yes	Yes
PVM-1440QM	• LINE A, LINE B • Y/C • VTR	Yes	Yes	Yes	Yes (NTSC only)	Yes	Yes
	AV (RGB signal only)	No	Yes	No	No	Yes	No

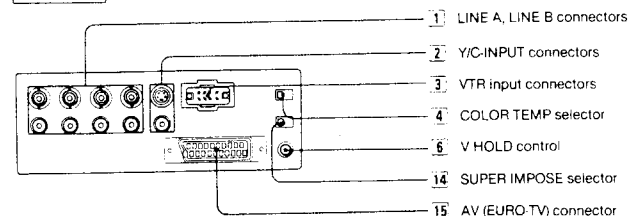
Rear panel PVM-1444QM



Rear panel PVM-1442QM



Rear panel PVM-1440QM



1 LINE A, LINE B connectors

Two groups (A and B) of line input connectors for the composite video and audio signals and their loop-through output connectors.

To monitor the input signal fed through these connectors, press the A or B input select button on the front panel.

VIDEO IN (BNC type): Connect to the video output of a video equipment, such as a VTR or a color video camera. For a loop-through connection, connect to the video output of another monitor.

VIDEO OUT (BNC type): Loop-through output of the VIDEO IN connector. Connect to the video input for a VTR or another monitor.

When the cable is connected to this connector, the 75-ohms termination of the input is automatically released, and the signal input to the VIDEO IN connector is output from this connector.

AUDIO IN (phono jack): Connect to the audio output of a VTR or to a microphone via a suitable microphone amplifier. For a loop-through connection, connect to the audio output of another monitor.

AUDIO OUT (phono jack): Loop-through output of the AUDIO IN jack. Connect to the audio input of a VTR or another monitor.

2 Y/C-INPUT connectors (4-pin)

VIDEO: Connect to the Y/C separate output of a video camera or a VTR.

AUDIO: Connect to the audio output of a video camera or a VTR.

To monitor the input signal fed through these connectors, press the Y/C/VTR button on the front panel.

3 VTR input connectors (8-pin)

Line input for the video and audio signals. When connected to the 8-pin TV connector of a VTR, the video and audio playback signal from the VTR can be input through a single cable.

To monitor the input signal fed through this connector, press the Y/C/VTR button on the front panel, with the Y/C-INPUT connectors connected to no outputs. When both VTR and Y/C-INPUT connectors are connected to video equipment, the input signal fed through the Y/C-INPUT connectors has priority over the one fed through the VTR connectors.

4 COLOR TEMP (temperature) selector

Select the color temperature position, 9300°K or 6500°K.

5 COMPO (component)/RGB selector

Set to COMPO to monitor component signal fed through the R/R-Y, G/Y, B/B-Y connectors.

Set to RGB to monitor analog R/G/B signal fed through the R/R-Y, G/Y, B/B-Y connectors.

6 V HOLD (vertical hold) control

Turn to stabilize the picture if it rolls vertically.

7 EXT SYNC (external sync) connectors (BNC type)

IN: Connect to the output of a sync generator.

To use the sync signal fed through this connector, depress the EXT SYNC button.

OUT: Loop-through output of the SYNC IN connector. Connect to the SYNC input of a video camera. When the cable is connected to this monitor, the 75-ohms termination of the input is released, and the signal input to the IN connector is output from this connector.

8 CTRL S (control S) connectors (minijack)

For remote control of the APERTURE, BRIGHT, CHROMA, PHASE, CONTRAST and VOL control buttons.

IN: Connect to the "control S" output of other equipment.

OUT: Connect to the CTRL S IN connector of another monitor by using a connecting cord (miniplug→miniplug).

9 ANALOG RGB/COMPONENT connectors (BNC type)

R/R-Y IN, G/Y IN, B/B-Y IN:

To monitor the analog R/G/B signal, connect to the analog R/G/B signal outputs of a video camera having no sync signal.

Set the COMPO/RGB selector on the rear panel to RGB and press the ANALOG RGB/COMPONENT button on the front panel. When the EXT SYNC button is released, the monitor operates on the sync signal from the G channel.

To monitor the component signal, connect to the R-Y/Y-B-Y component signal outputs of a BETACAM video camera. Set the COMPO/RGB selector on the rear panel to COMPO and press the ANALOG RGB/COMPONENT button on the front panel. When the EXT SYNC button is released, the monitor operates on the sync signal from the Y channel.

R/R-Y OUT, G/Y OUT, B/B-Y OUT:

Loop-through outputs of the R/R-Y IN, G/Y IN, B/B-Y IN connectors.

For R/G/B signal, connect to the analog R/G/B signal inputs of a video camera.

For component signal, connect to the R-Y/Y-B-Y component signal inputs of a BETACAM video camera. When the cables are connected to these connectors, the 75-ohms termination of the input is automatically released, and the signal inputs to the R/R-Y IN, G/Y IN, B/B-Y IN connectors are output from these connectors.

AUDIO IN: Connect to the audio output of video equipment when the analog R/G/B or component signal is input.

10 DIGITAL RGB connector (9-pin)

Connect with a microcomputer having a digital (TTL level) RGB video output.

To monitor the input signal fed through this connector, press the RGB button and keep the ANALOG/DIGITAL (EXT SYNC) button released.

Note

For connection, be sure to use an optional SMF-520 connecting cable.

11 H CENT (horizontal centering) control

When a digital R/G/B signal is monitored, turn to center the picture if it is decentered.

12 EXT SYNC (external sync) connectors (BNC type)

IN: Connect to the output of a sync generator.

To monitor the sync signal fed through this connector, depress the ANALOG/DIGITAL (EXT SYNC) button.

OUT: Loop-through output of the SYNC IN connector.

Connect to the SYNC input of a video camera. When the cable is connected to this connector, the 75-ohms termination of the input is released, and the signal input to the IN connector is output from this connector.

13 ANALOG RGB connectors (BNC type)

R/G/B IN: Connect to the analog R/G/B outputs of a video camera.

To monitor a signal fed through these connectors, press the RGB button and depress the ANALOG/DIGITAL (EXT SYNC) button.

R/G/B OUT: Loop-through outputs of the R/G/B IN connectors. Connect to the analog R/G/B inputs of a video camera.

When the cable is connected to these connectors, the 75-ohms termination of the input is released, and the signal input to the R/G/B IN connectors is output from these connectors.

14 SUPERIMPOSE selector

Normally set to ON.

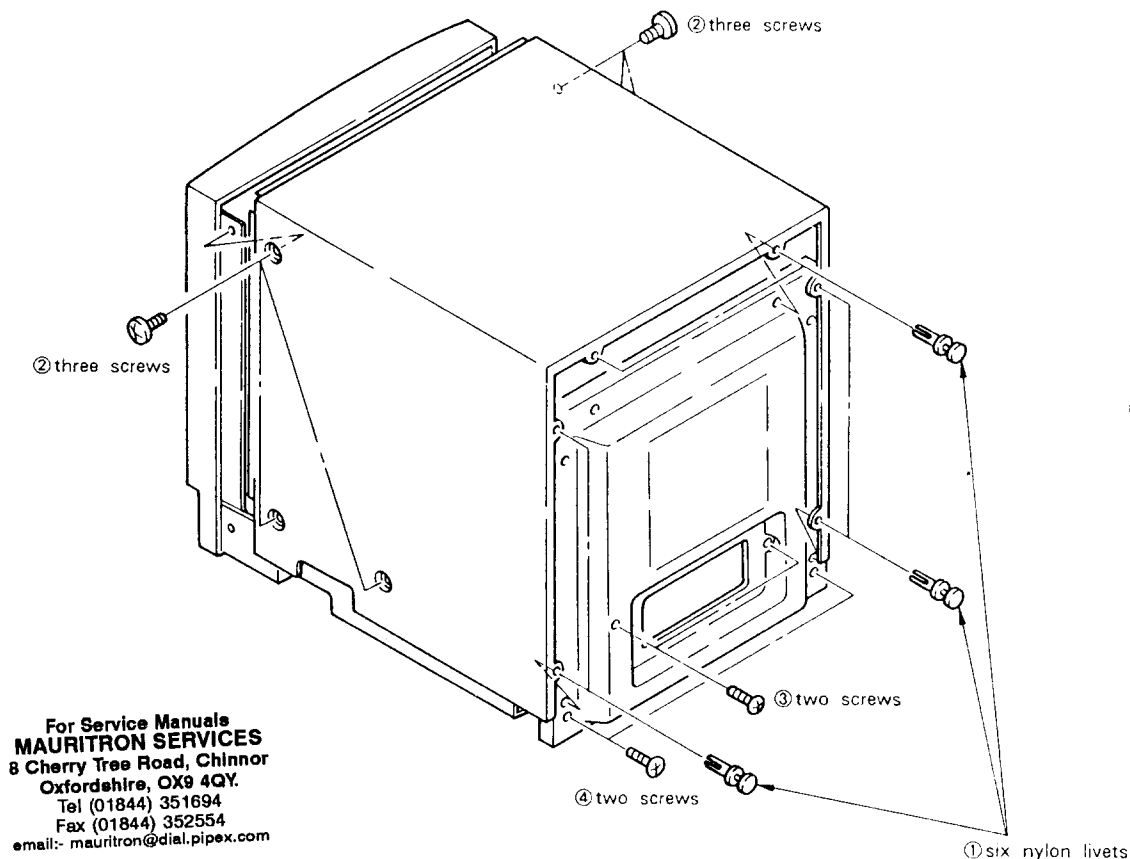
Set to OFF to display the analog RGB signal fed through the AV (EURO-TV) connector.

15 AV (EURO-TV) connector (21-pin)

Connect to the 21-pin multiconnector of decoders.

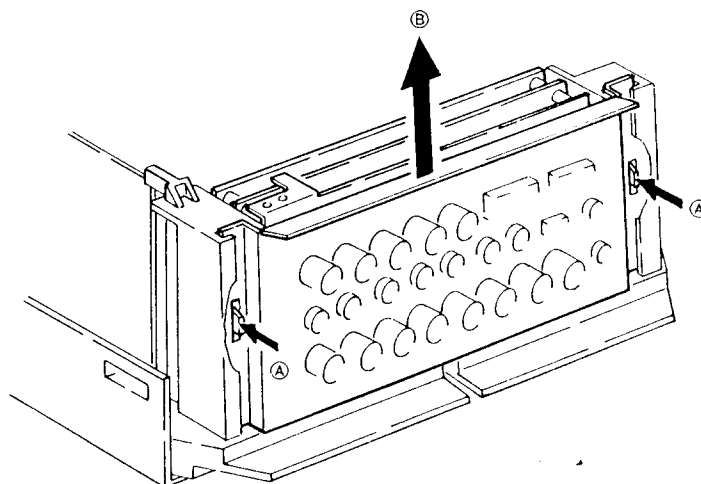
SECTION 2 DISASSEMBLY

2-1. REAR COVER AND TOP COVER REMOVAL



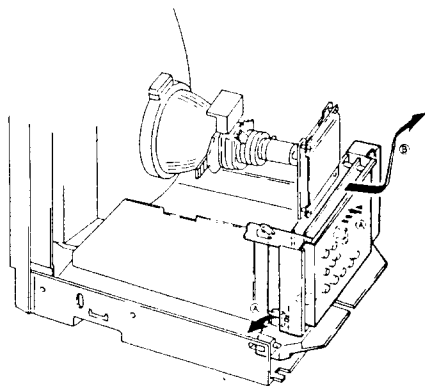
2-2. TERMINAL BOARD REMOVAL

Note : When you remove terminal board, pull out A board a short distance.



2-3. BRACKET OF TERMINAL BOARD REMOVAL

- ① Remove the bracket of terminal board as arrow ⑧ while extend two claws as arrow ⑨.



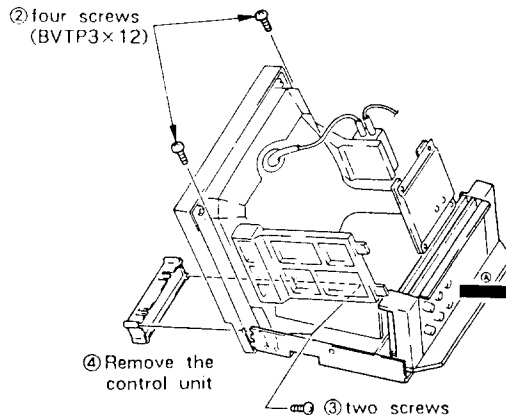
2-4. CONTROL UNIT REMOVAL

- ② four screws (BVTP3×12)

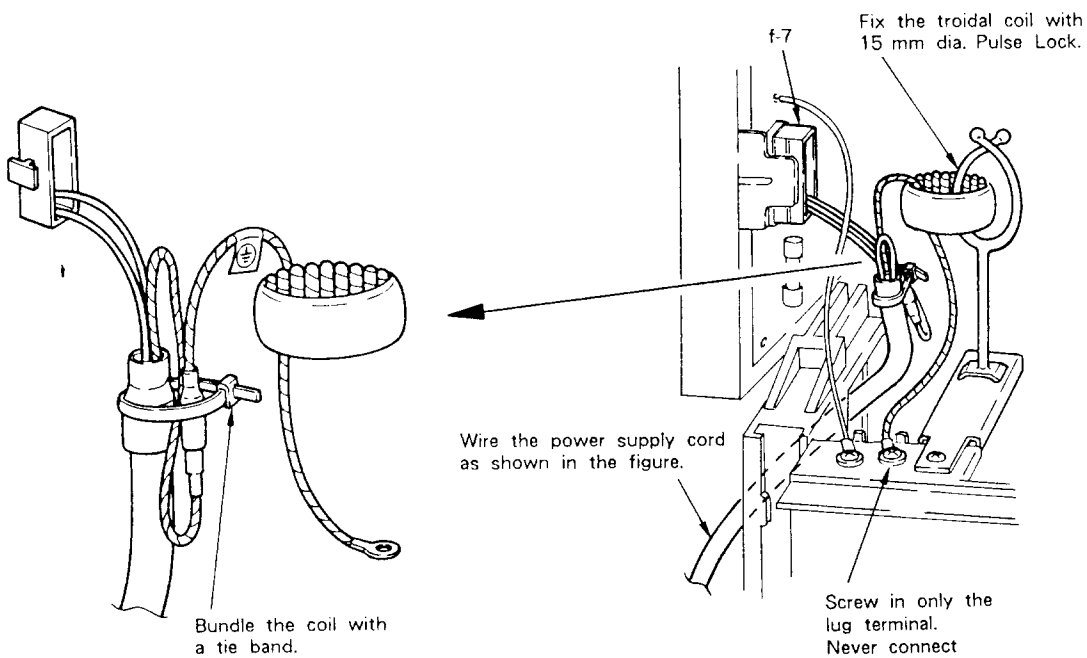
- ④ Remove the control unit

- ③ two screws

- ① Pull out the cabinet of bottom as arrow ①.



2-5. NOTE ON WIRING THE TROIDAL COIL AND IT'S PERIPHERAL PART



2-6. PICTURE TUBE REMOVAL

NOTE : Caution for ANODE CAP installation.

When you replace PICTURE TUBE or FBT, remove RTV on ANODE CAP so that PICTURE TUBE and FBT can be separated. Please adhere picture tube and anode cap in accordance with the following procedure.

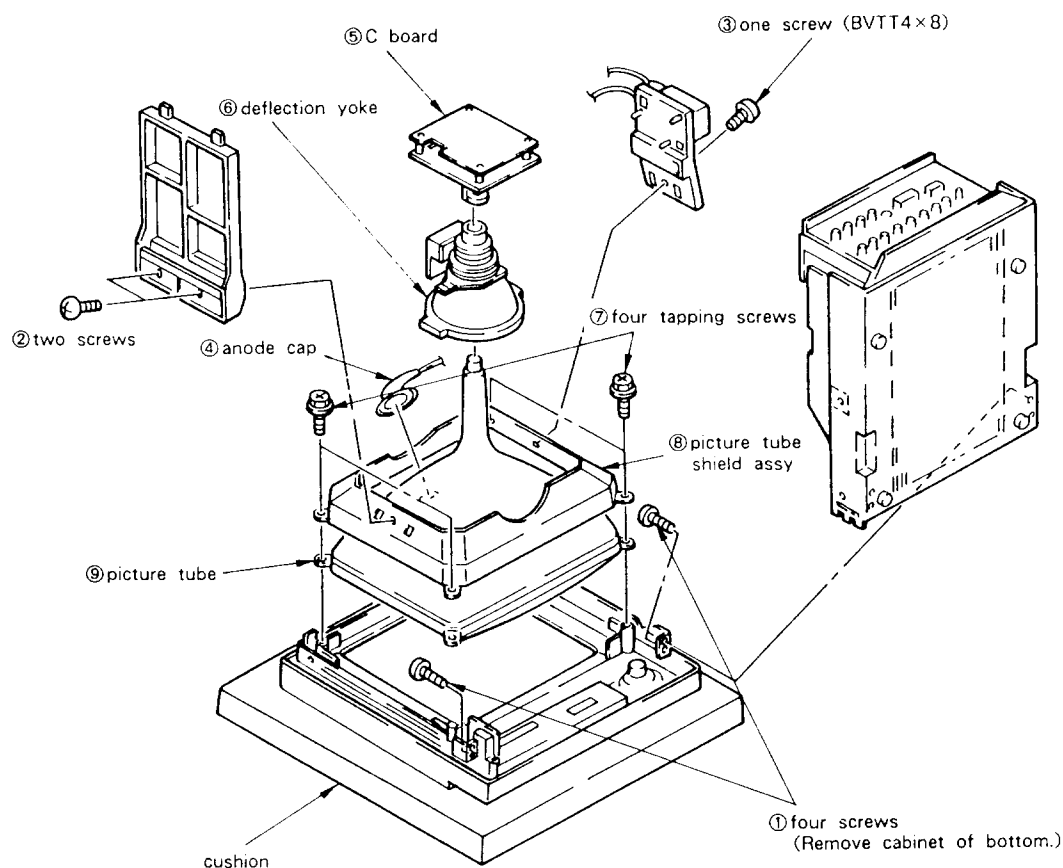
ADHERING PROCEDURE OF ANODE CAP.

1. Clean PICTURE TUBE ANODE CAP with ethanol to remove original RTV.
2. Dry clean face with air.

3. Use KE-490RTV (RTV silicone adhesive, SHIN-ETSU CHEMICAL).

Part. No.	Description
7-322-065-19	Silicone (RTV) KE-490W

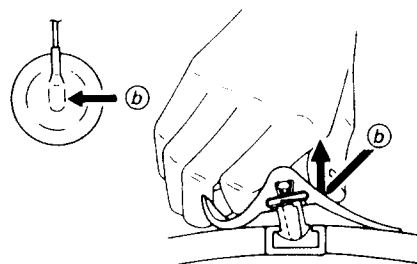
4. Install ANODE CAP.
5. Adequately apply RTV to the entire picture tube anode area, piece the anode cap onto the picture tube and push it down securely so that no air pockets remain beneath the cap.
6. Dry more than 12 hours at room temperature.



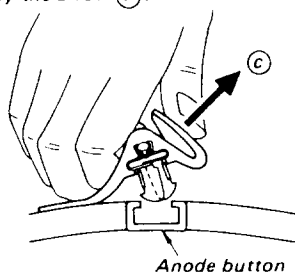
ANODE CAP REMOVAL

• Removing Procedures

- ① Turn up one side of the rubber cap in the direction indicated by the arrow (a).



- ② Using a thumb, pull up the rubber cap firmly in the direction indicated by the arrow (b).



- ③ When one side of the rubber cap is separated from the anode button, the anode cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow (c).

SECTION 3

SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

The control and switch below should be set as follows unless otherwise noted :

CONTRAST control 80%

BRIGHTNESS control 50%

Perform the adjustments in order as follows :

- 3-1. Beam Landing
- 3-2. Convergence
- 3-3. Focus
- 3-4. White Balance

Note : Test Equipment Required.

1. Color Bar/Pattern Generator
2. Degausser
3. Color Analyzer (Minolta)
4. Luminance Level Meter
5. Oscilloscope

Precaution

- Set the side of the unit with the PICTURE TUBE so that it faces east or west in order to reduce the influence of external magnetic force.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser.

3-1. BEAM LANDING

1. Receive an entirely white signal with the pattern generator.
CONTRAST MAX.
BRIGHTNESS set easy to observe
2. Adjust the focus and the horizontal convergence roughly.
3. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown in Fig. 3-1.
4. Switch over the pattern generator to green.
5. Move the deflection yoke backward, and adjust with the purity control so that green is in the center and blue and red are at the sides, evenly. (Fig. 3-2)
6. Move the deflection yoke forward, and adjust so that the entire screen becomes green. Repeat 5 to 7 as to red and blue.
7. When landing at the corners is not right, correct by using the magnet. (Fig. 3-3)
8. When the position of the deflection yoke is determined, tighten it with a deflection yoke mounting screw.

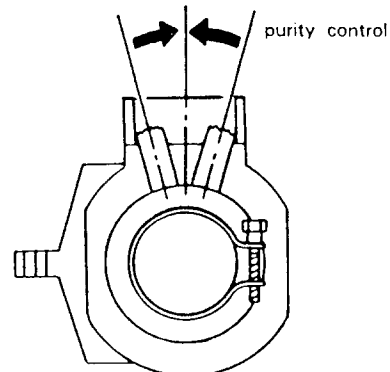
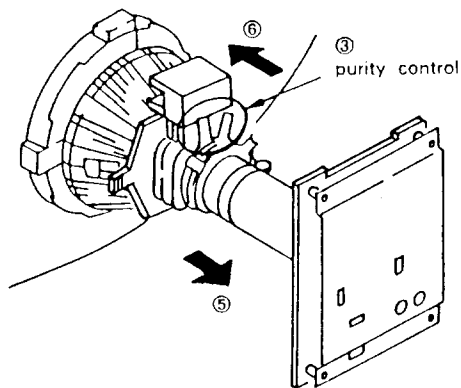


Fig. 3-1

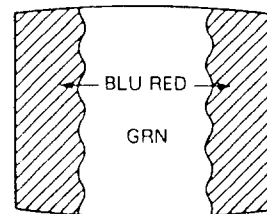


Fig. 3-2

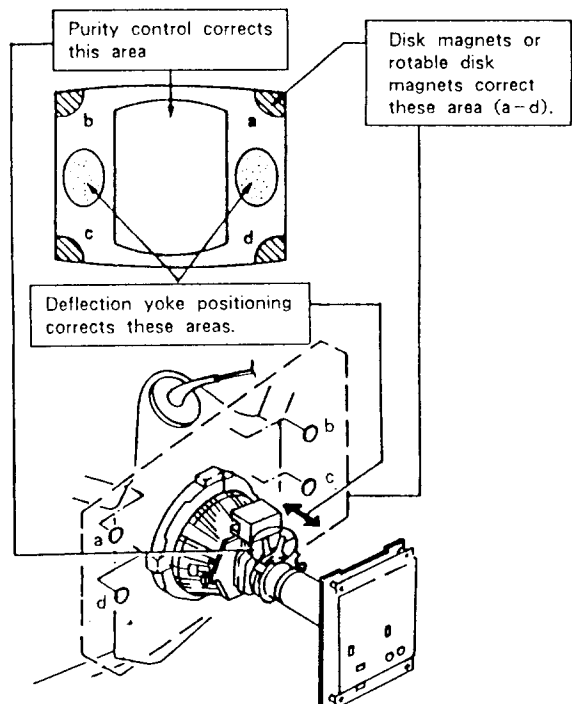


Fig. 3-3

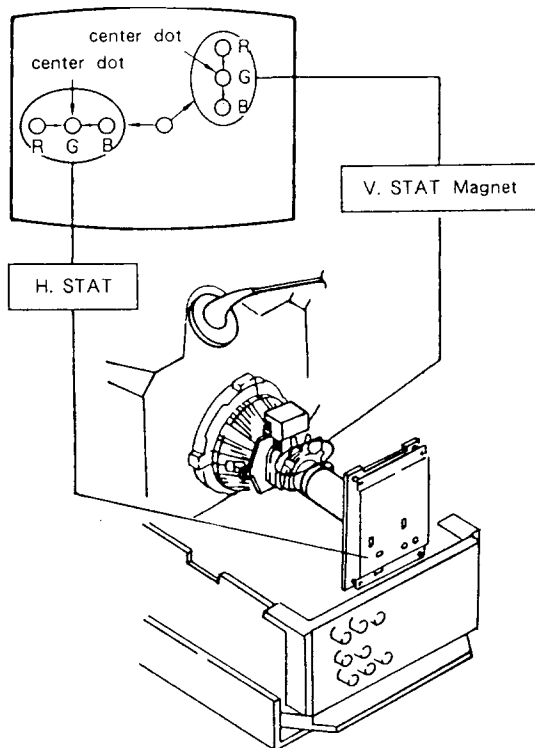
3-2. CONVERGENCE

(1) Horizontal and Vertical Static Convergence Adjustment on the Center of Screen.

- Before starting, perform V. SIZE, V. CENT, H. SIZE, H. CENT and Screen Distortion adjustment rightly.

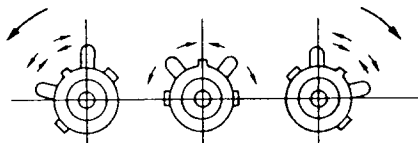
(Static Convergence Adjustment)

- Receive a dot signal and Set CONTRAST to normal.
- Adjust H. STAT VR to coincide red, green and blue dots on the center of screen. (Horizontal movement)
- Adjust V. STAT magnet to coincide red, green and blue dots on the center of screen. (Vertical movement)



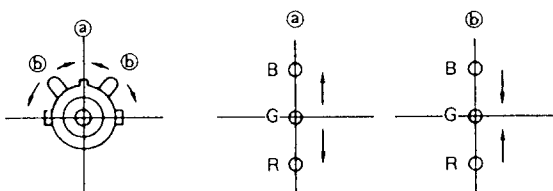
- If the red, green and blue dots do not coincide on the center of screen with H. STAT VR, perform adjustment using V. STAT at the same time while tracking.

(Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.)



- When the V. STAT magnet is moved in the direction of arrow (a) and (b), red, green and blue dots move as shown below.

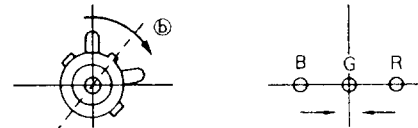
- When moving the V. STAT Magnet open or close.



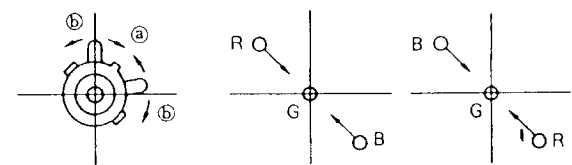
- When moving the V. STAT magnet counterclockwise.



- When moving the V. STAT magnet clockwise.



- When tilt the V. STAT magnet and open or close.

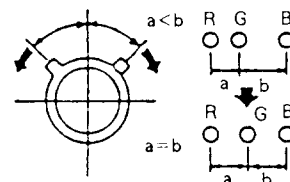


- If the red and green dots do not coincide with blue dot, adjustment with BMC (6-poles) magnet.

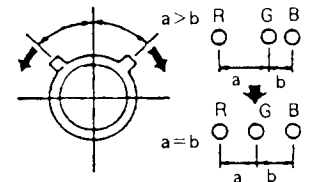
- HMC and VMC correction for BMC (6-Poles) magnet.

- HMC (Horizontal Misconvergence) correction and motion of the Electron Beam with the BMC (6-poles) magnet.

HMC Correction (A)

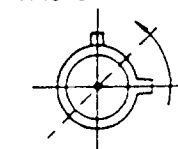


HMC Correction (B)

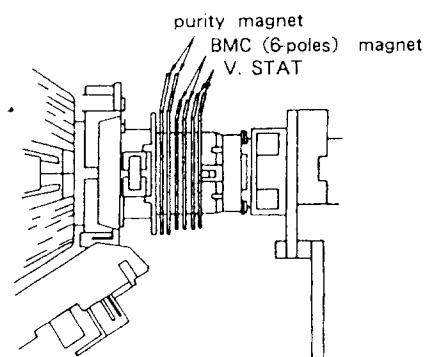
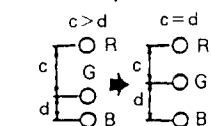
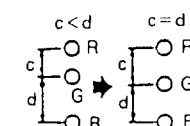
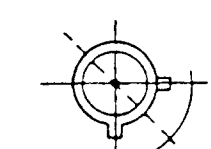


- VMC (Vertical Misconvergence) correction and motion of the Electron Beam with the BMC (6-poles) magnet.

VMC Correction (A)



VMC Correction (B)

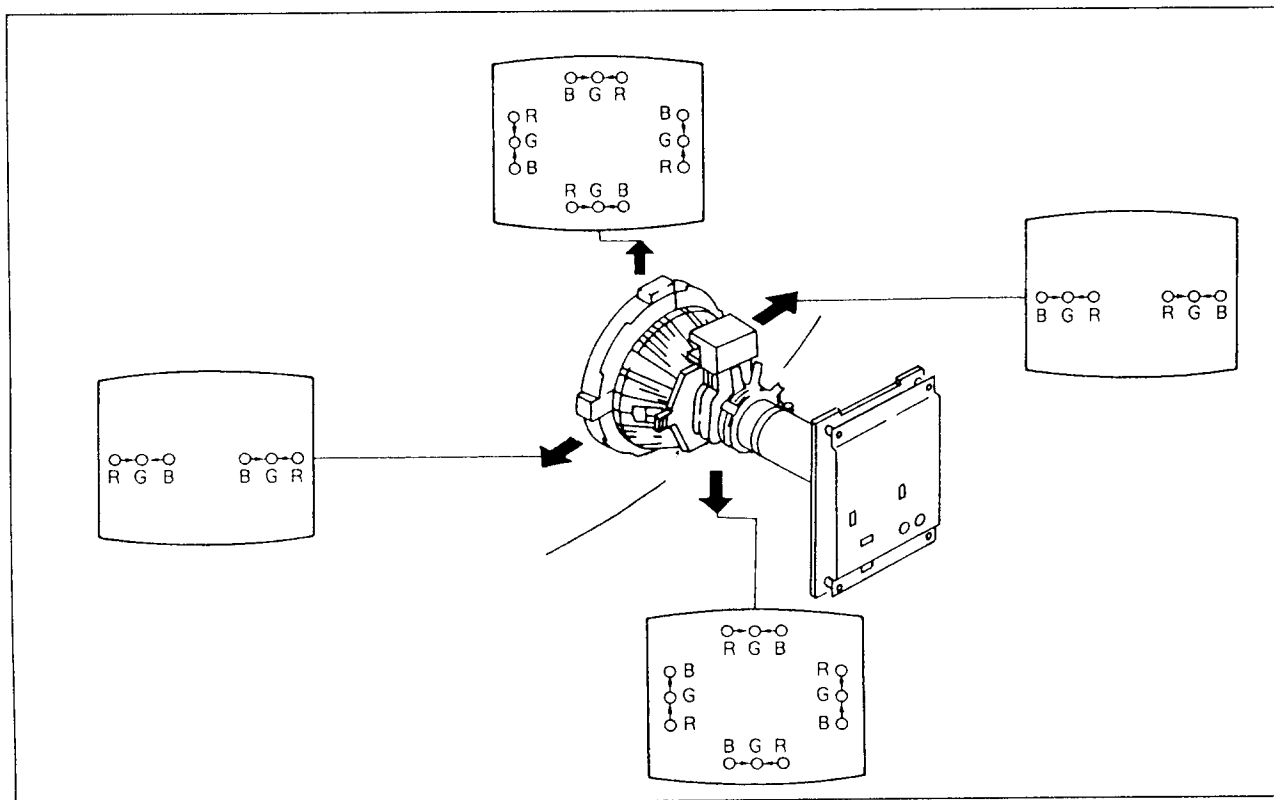


(2) Horizontal and Vertical Dynamic Convergence

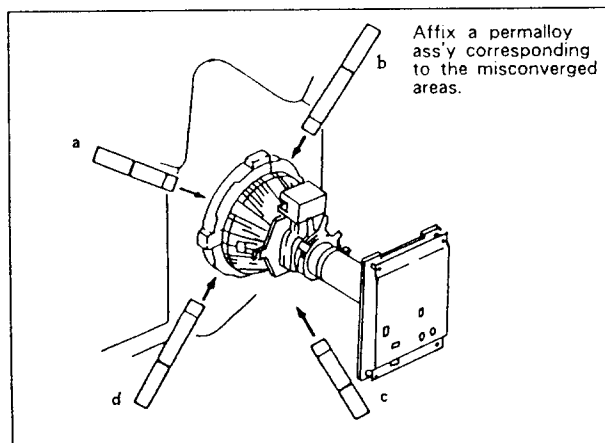
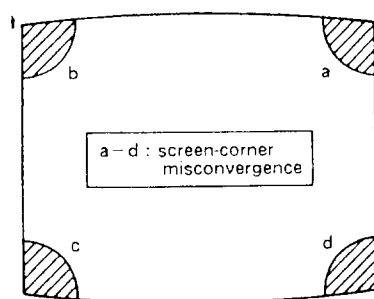
Adjustment the environs of the Screen

(Dynamic Convergence Adjustment)

1. Loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.



(3) Screen-corner Convergence

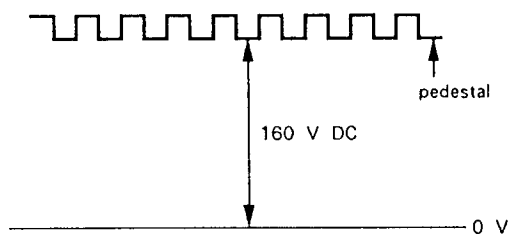


3-3. FOCUS

1. Receive the broadcast.
2. CONTRAST Normal
3. Adjust RV707 so that the focus on the center of screen becomes to the best.

3-4. WHITE BALANCE**(Screen (G2) Voltage)**

1. Receive a dot signal with the pattern generator.
2. Switch over COLOR TEMP to 6500° K.
3. Using oscilloscope, adjust with RV1710 (SUB BRT) on V board so that the green cathode voltage against ground becomes 160 V DC.
4. Similarly, adjust with RV1704 (B BKG) and RV1705 (R BKG) on V board so that the blue and red cathode voltages become 160 V DC.

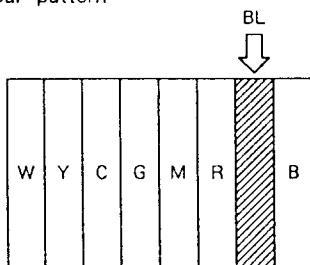


5. Observing the screen, adjust with RV709 (SCREEN) on C board so that the back-ground of the dot signal is bright dimly.

(White Balance)

1. Receive a color-bar pattern signal with the pattern generator, and to make black and white screen by chroma switch off.
2.
 - BRIGHTNESS 50%
 - CONTRAST Minimum
 - CHROMA 50%
 - DRIVE volume (V BOARD) mechanical center
 - BKG volume (V BOARD) mechanical center
3. Adjust RV1710 (SUB BRIGHT) so that the blue stripe portion on the color-bar pattern signal is bright dimly.

color-bar pattern



4. Receive an entirely white signal from the pattern generator.
5. CONTRAST 70%
6. Using the luminance level meter, adjust the luminance level of the pattern generator becomes 8 Nit. (The condition the screen is bright dimly.)

7. Adjust with the color analyzer the white balance.
8. Reset the luminance level of the pattern generator, and adjust the white balance. (High light condition.)

SECTION 4

SAFETY RELATED ADJUSTMENTS

CONFIRMATION WHEN REPLACING H.V.R (High Voltage Resistor)

The following adjustment should be confirm the output voltage when replacing HVR.

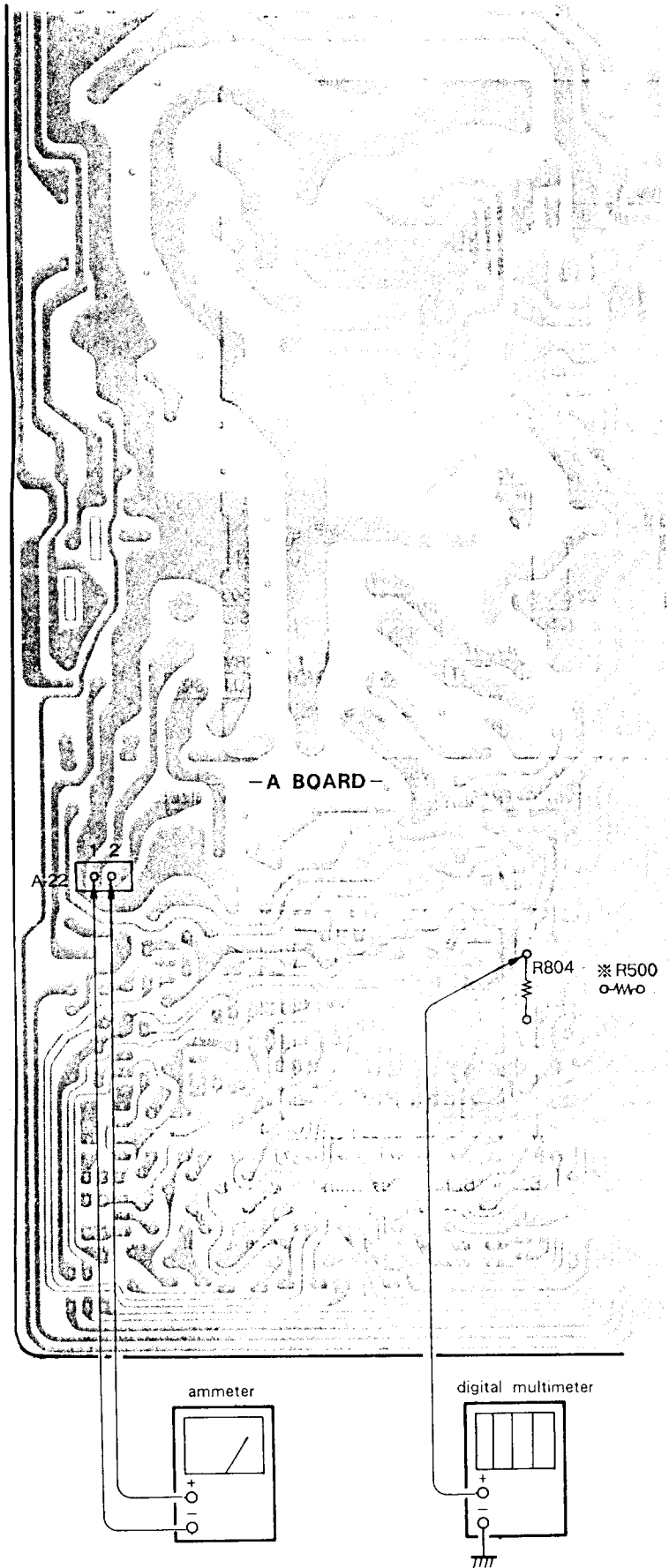
1. Receive an entire white signal.
2. • CONTRAST Maximum
• BRIGHTNESS Maximum
3. Connect a digital multimeter to the A-20 connector side lead of R804.
4. Confirm the voltage is 14.1 ± 1.0 V DC.

※R500, CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components.

IC501, Q503, Q504, Q505, Q506, D509, D510, C505, C520, C524, C525, C526, C527, C528, C529, C530, C531, R500, R506, R516, R517, R518, R519, R520, R521, R522, R523, R524, R525, R526, R528, R804, NL501, HVR	}	on A board
---	---	------------

1. Receive an entire white signal.
2. • CONTRAST Maximum
• BRIGHTNESS Maximum
3. Connect a digital multimeter to the A-20 connector side lead of R804.
4. Confirm the voltage is 14.1 ± 1.0 V DC.
5. Receive a dot signal.
6. Disconnect A-22 connector (ABL JIG) on A board and connect an ammeter.
7. Adjust BRIGHTNESS and CONTRAST so that the current is 70 ± 30 μ A.
8. Apply an external DC voltage gradually to the A-20 connector side lead of R804, and when the voltage becomes 16.4 ± 0.1 V DC, confirm the HOLD-DOWN circuit operates immediately and raster disappears.
9. With the same procedure of item 8, when the voltage becomes 15.8 ± 0.1 V DC, confirm the HOLD-DOWN circuit doesn't operate.
10. Receive an entire white signal.
11. Adjust with BRIGHTNESS and CONTRAST volumes so that the current is 600 ± 40 μ A.
12. Apply DC voltage to the A-20 connector side lead of R804, and when the voltage becomes 15.8 ± 0.1 V DC, confirm the HOLD-DOWN circuit operates immediately and raster disappears.
13. With the same procedure of item 8, when the voltage becomes 15.2 ± 0.1 V DC, confirm the HOLD-DOWN circuit doesn't operate.
14. When step 4 to 13 is not satisfied, readjustment should be performed by altering the resistance value of R500 (※).

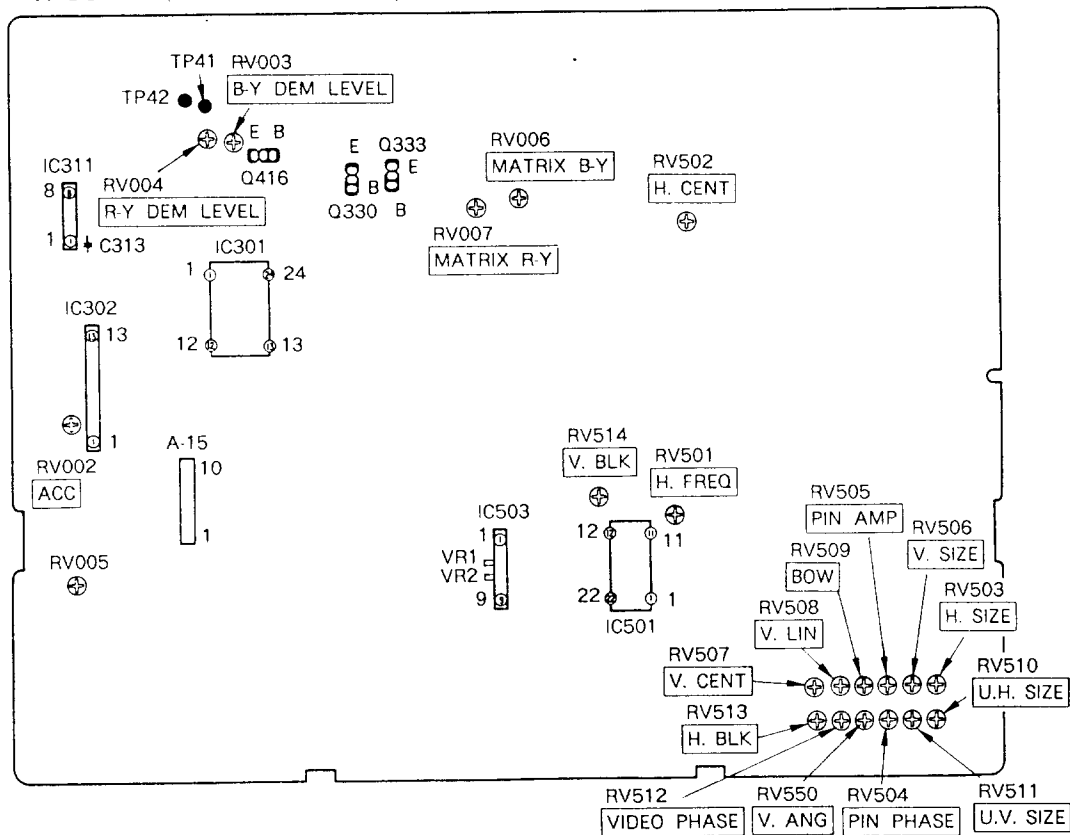


SECTION 5

CIRCUIT ADJUSTMENTS

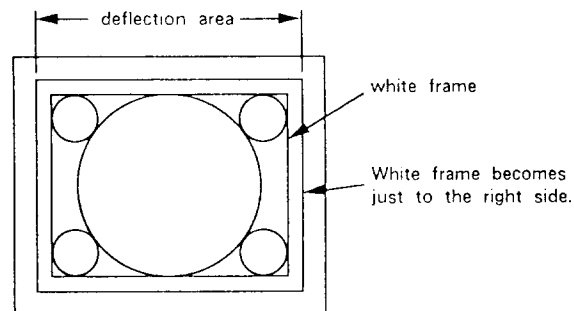
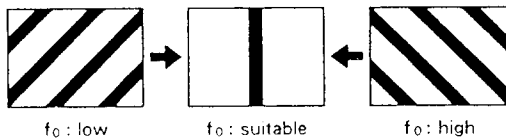
5-1. A BOARD ADJUSTMENTS

—A BOARD (COMPONENT SIDE) —



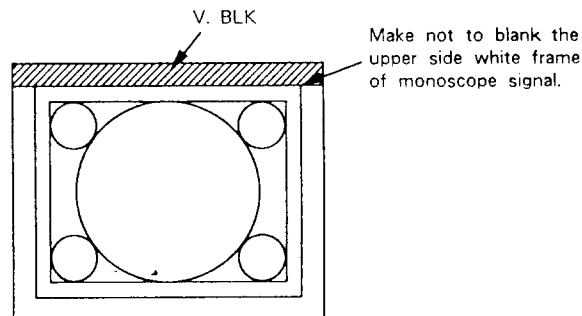
HORIZONTAL OSCILLATION FREQUENCY ADJUSTMENT (RV501)

1. Receive a monoscope signal.
2. Connect pin ① of IC501 to ground with 100 μ F / 16 V electrolytic capacitor.
3. Adjust RV501 so that the screen streaming stops.



6. V. BLK Adjustment (RV514)

- (1) Adjust RV514 (V. BLK) so that the upper side white frame of monoscope signal is not blanked.

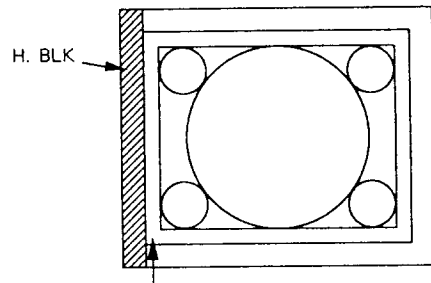


H-V BLK ADJUSTMENTS (RV510, RV512, RV513, RV514)

1. Receive a monoscope signal.
2. Set U/S (Under Scan) switch to Under mode.
3. • CONTRAST Minimum
• BRIGHTNESS Maximum
4. Adjust RV510 (U. H. SIZE) so that the white frame of monoscope signal becomes visible.
5. Adjust RV512 (Video Phase) so that the white frame of monoscope signal becomes to the right side just on the screen.

7. H. BLK Adjustment (RV513)

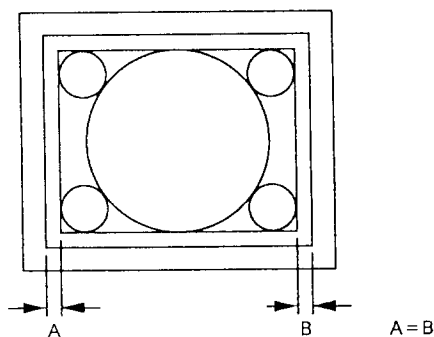
- (1) Adjust with RV513 (H. BLK) so that the vertical line of the white frame of monoscope signal is blanked as following figure.



Make to blank the vertical line of the white frame of monoscope signal.

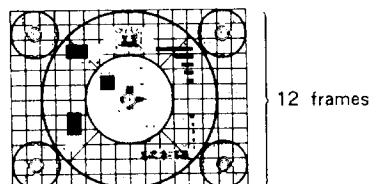
8. Screen Phase Adjustment (RV512)

- (1) Adjust RV512 (Video Phase) so as to equalize the width of the white frame of monoscope signal on both sides of screen right and left.

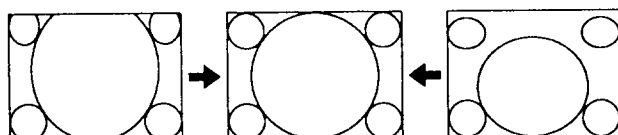


VERTICAL DEFLECTION PART ADJUSTMENTS (RV506, RV507, RV508, RV511)

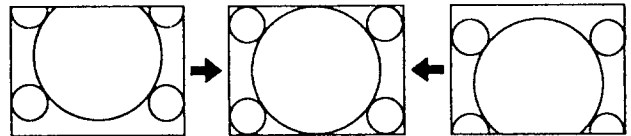
1. Receive a monoscope signal.
2. • CONTRAST 70%
• BRIGHTNESS 50%
3. Adjust RV506 (V. SIZE) so that the vertical size of monoscope signal becomes 12 frames.



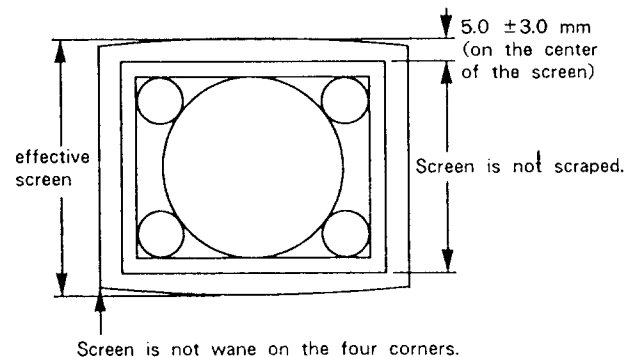
4. Adjust RV508 (V. LIN) the vertical linearity.



5. Adjust RV507 (V. CENT) the vertical position.

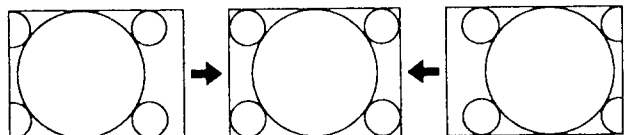


6. Adjust RV506 (V. SIZE) so that the vertical size of monoscope signal becomes 11.75 ± 0.2 frames.
7. Set U/S (Under Scan) switch to Under mode.
8. Adjust with RV511 (U.V. SIZE) as follows.

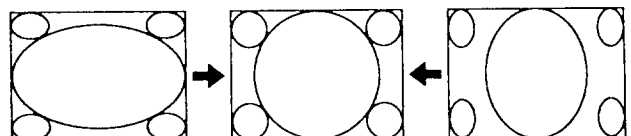


HORIZONTAL DEFLECTION PART ADJUSTMENTS (RV502, RV503, RV504, RV505, RV509, RV510, RV550)

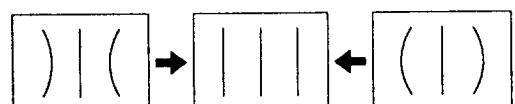
1. Receive a monoscope signal.
2. • CONTRAST 70%
• BRIGHTNESS 50%
3. H. CENT Adjustment (RV502)
(1) Adjust RV502 (H. CENT) the horizontal position.



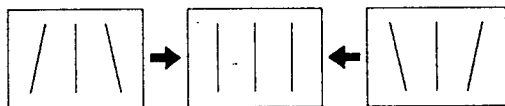
4. H. SIZE Adjustment (RV503)
(1) Adjust RV503 (H. SIZE) the horizontal size.



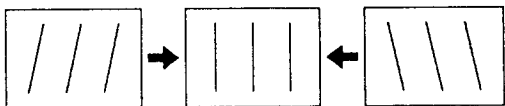
5. PIN AMP, PIN PHASE, V. ANG, BOW Adjustments (RV505, RV504, RV509, RV550)
• PIN AMP (RV505)



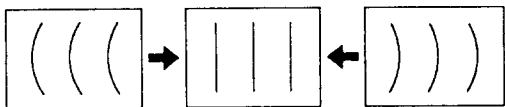
• PIN PHASE (RV504)



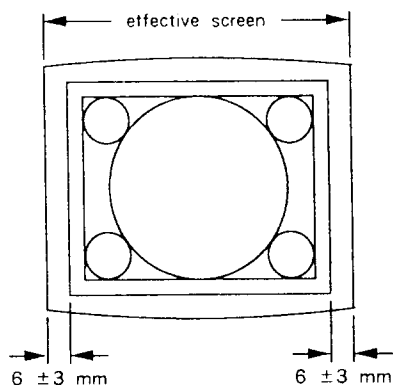
• V. ANG (RV550)



• BOW (RV509)

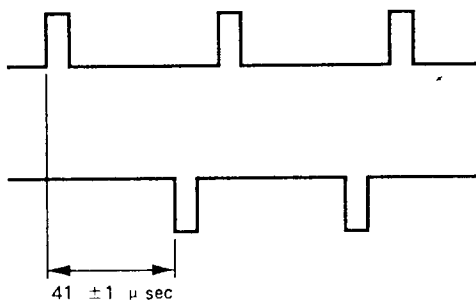


6. Adjust RV503 (H. SIZE) so that the horizontal size becomes 15.75 ± 0.2 frames.
7. Set U/S (Under Scan) switch to Under mode.
8. Adjust RV510 (U.H. SIZE) the Under H. SIZE as follows.



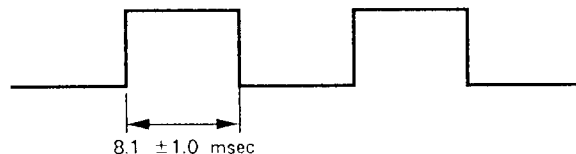
H-V DELAY ADJUSTMENT (VR1, VR2)

1. Receive a monoscope signal.
2. • CONTRAST 70%
• BRIGHTNESS 50%
3. Set H-V DELAY switch to DELAY mode.
4. H. DELAY Adjustment (VR1)
 - (1) Connect an oscilloscope to pin ② (SYNC SEP) and pin ⑨ (H. SYNC) of IC503.
 - (2) Adjust VR1 of IC503 to become 41 ± 1 μ sec as follows.



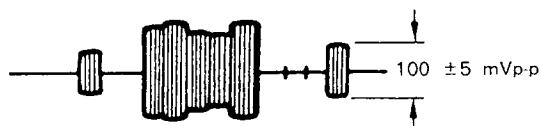
5. V. DELAY Adjustment (VR2)

- (1) Connect an oscilloscope to pin ⑥ of IC503.
- (2) Adjust VR2 of IC503 to become 8.1 ± 1.0 msec as follows.



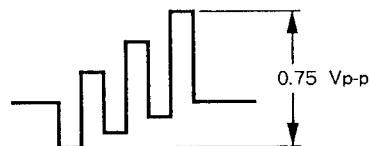
ACC ADJUSTMENT (RV002)

1. Receive a color-bar signal (EIA color-bar).
2. Connect an oscilloscope to the IC302 side lead of C313.
3. Adjust RV002 so that the burst signal level becomes 100 ± 5 mVp-p.



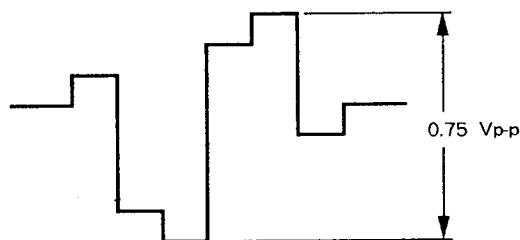
B-Y DEM LEVEL ADJUSTMENT (RV003)

1. Receive a color-bar signal (EIA 75% chroma color-bar).
2. Connect an oscilloscope to TP42 (B-Y).
3. Adjust RV003 so that the B-Y waveform becomes 0.75 Vp-p.



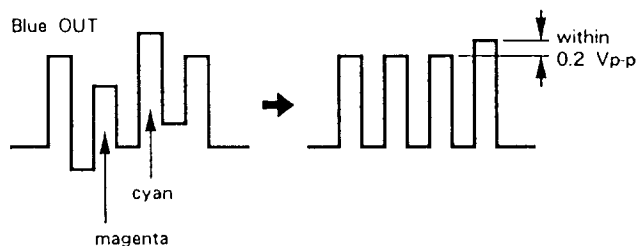
R-Y DEM LEVEL ADJUSTMENT (RV004)

1. Receive a color-bar signal (EIA 75% chroma color-bar).
2. Connect an oscilloscope to TP41 (R-Y).
3. Adjust RV004 so that the R-Y waveform becomes 0.75 Vp-p.

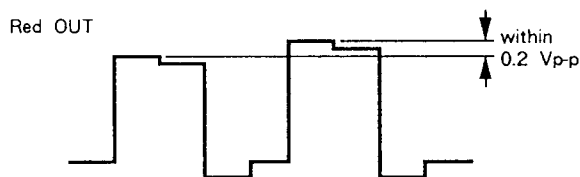


MATRIX ADJUSTMENT (RV006, RV007)

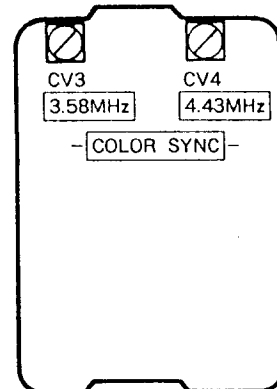
1. Receive a color-bar signal.
 (white peak : 75%
 black level : 0%
 chroma max. : 75%
 chroma min. : 0%)
2. CONTRAST 70%
3. Connect an oscilloscope to pin ⑤ (B OUT) of A-15.
4. Adjust RV006 (B-Y) so that the BLUE OUT waveform becomes flat as following figure.



5. When there is difference between cyan portion and magenta portion, adjust with RV006 while tracking with PHASE volume for user control.
6. Connect an oscilloscope to pin ③ (R-Y) of A-15.
7. Adjust RV007 (R-Y) so that the RED OUT waveform becomes flat as following figure.



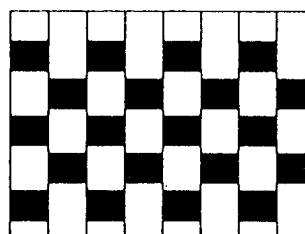
5-2. XA BOARD ADJUSTMENT



- XA BOARD
(COMPONENT SIDE) -

**COLOR SYNCHRONIZATION (CW) ADJUSTMENT
(CV3, CV4)**

1. Short-circuit pins ⑨ and ⑩ of IC301 on A board.
2. Connect pin ③ of IC311 on A board to +12 V line via 4.7 kΩ resistor.
3. Short-circuit base and emitter of Q416 on A board.
4. 3.58 MHz Adjustment (CV3)
 (1) Receive a color-bar signal (EIA color-bar).
 (2) Adjust CV3 the color synchronization.



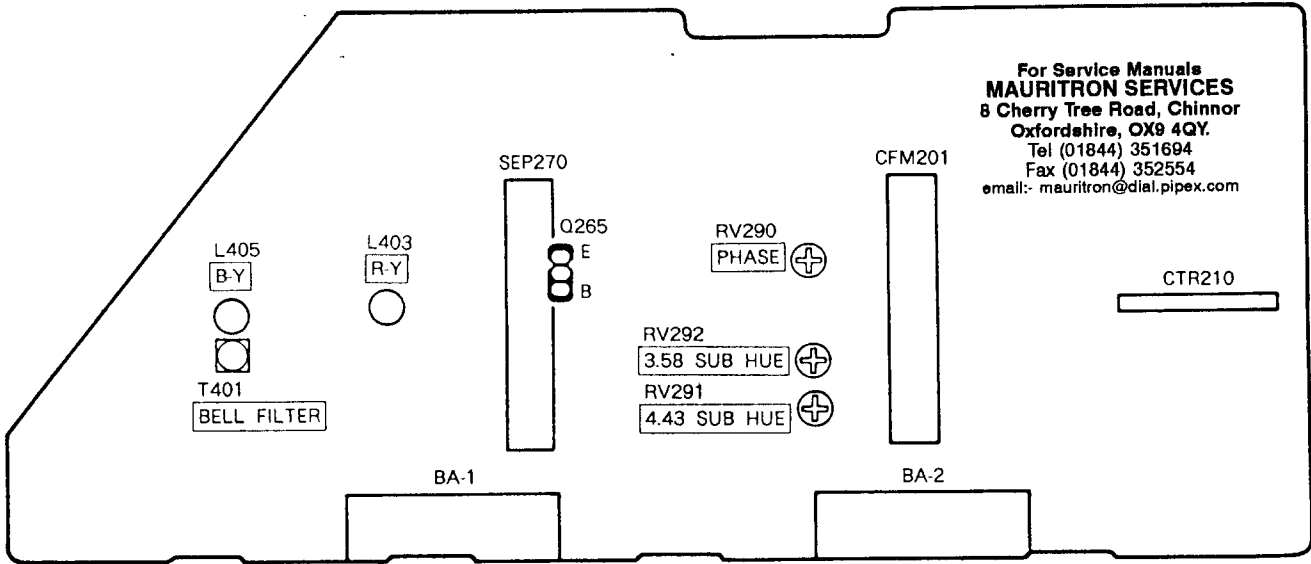
Adjust so that color stripes disappear and the hue change is stabilized extremery.

5. 4.43 MHz Adjustment (CV4)
 (1) Receive a color-bar signal (EBU color-bar).
 (2) Adjust CV4 the color synchronization.
6. Remove the short-circuit positions pins ⑨ and ⑩ of IC301 and base and emitter of Q416.

CAUTION : This adjustment (XA board adjustment) should be made earlier than all adjustments of color.

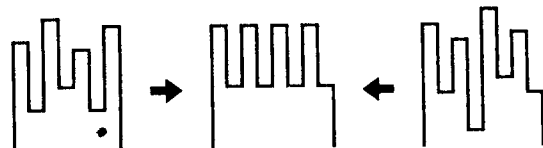
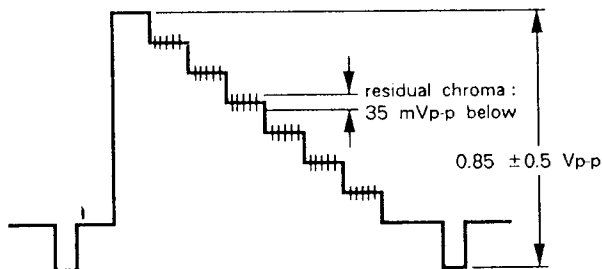
5-3. BA BOARD ADJUSTMENTS

— BA BOARD (COMPONENT SIDE) —



NTSC 3.58 MHz ADJUSTMENT (RV292)

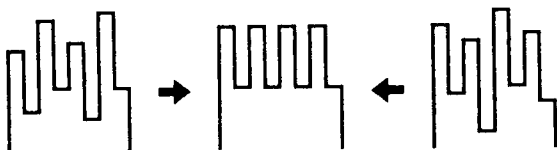
1. Receive NTSC 3.58 color-bar signal.
2. Connect an oscilloscope to pin ⑮ (COMPOSITE IN) of BA-2 connector.
3. Confirm the Y-OUT is 0.87 ± 0.5 Vp-p.
4. Confirm the residual chroma is 35 mVp-p below. When it is above 35 mVp-p, adjust with RV1 and T1 inside CFM201 while tracking.
2. Confirm the voltage on pin ④ of CTR210 is above 5.0 V DC, and on pin ⑤ of CTR210 is below 0.1 V DC.
3. Connect an oscilloscope to pin ⑤ of A-15 connector.
4. Adjust RV291 (4.43 SUB HUE) so that the BLUE OUT waveform level becomes flat as following figure.



Note : CONTRAST.....Normal condition
 HUE.....Normal condition

PAL ADJUSTMENTS (RV290)

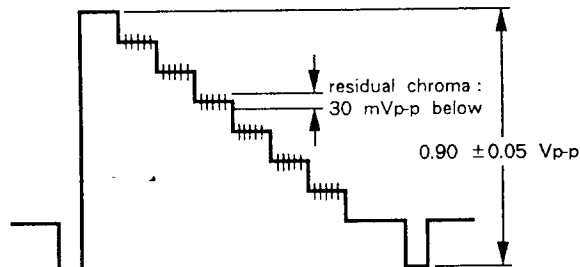
5. Connect an oscilloscope to pin ⑤ (B-OUT) of A-15 connector.
6. Adjust RV292 (3.58 SUB HUE) so that the BLUE OUT waveform level becomes flat as following figure.



Note : CONTRAST.....normal condition
 HUE.....Normal condition

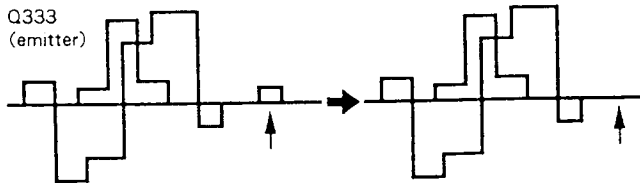
NTSC 4.43 MHz ADJUSTMENT (RV291)

1. Receive NTSC 4.43 color-bar signal.

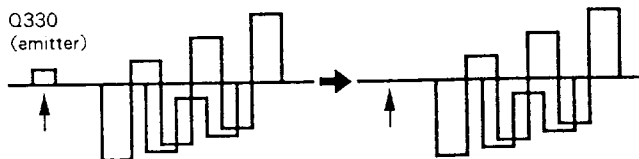


5. ANTI-PAL Adjustment (RV290)

- (1) Receive the special PAL color-bar.
- (2) Connect an oscilloscope to emitter of Q333 on A board, and adjust RV290 (PHASE) so that R-Y anti-PAL portion becomes flat as following figure.

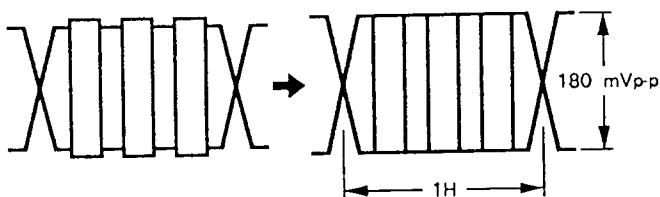


- (3) Connect an oscilloscope to emitter of Q330 on A board, and adjust RV2 inside SEP270 so that B-Y anti-PAL portion becomes flat as following figure.



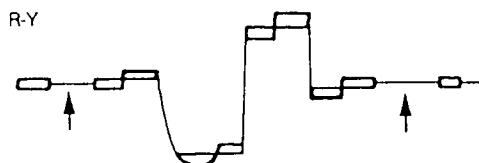
SECAM ADJUSTMENTS (T401, L403, L405)

1. Receive SECAM color-bar.
2. Bell Filter Adjustment (T401)
 - (1) Connect an oscilloscope to emitter of Q265.
 - (2) Adjust T401 (Bell Filter) so that the chroma waveform becomes smooth.



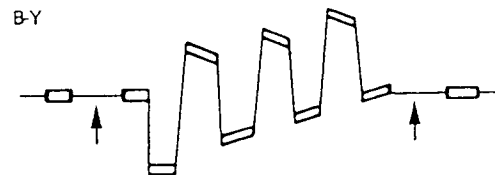
3. Color Balance Adjustment (L403)

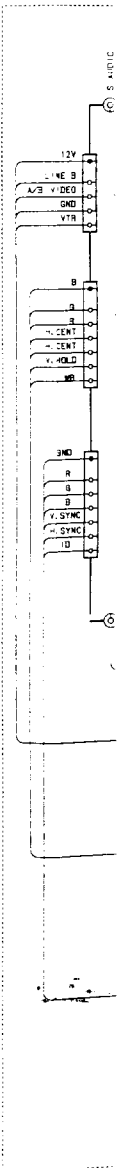
- (1) Connect an oscilloscope to pin ⑦ (R-Y) of BA-1 connector.
- (2) Adjust L403 (R-Y) so that the non-colored portion level becomes flat.



- (3) Connect an oscilloscope to pin ⑧ (B-Y) of BA-1 connector.

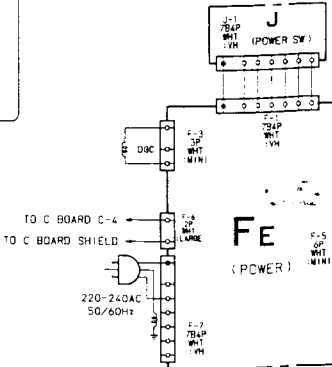
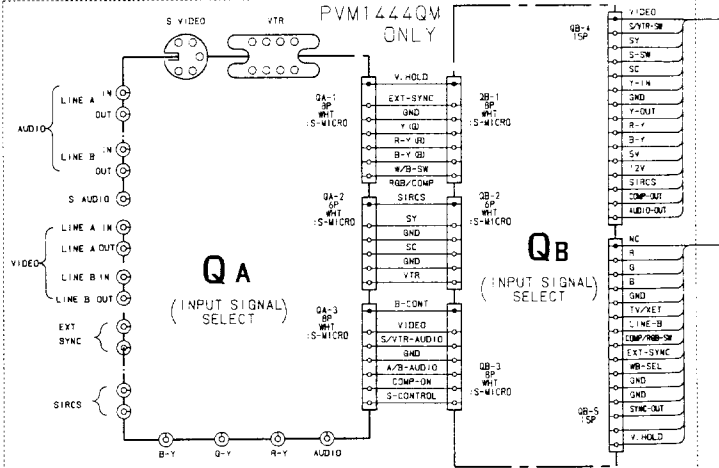
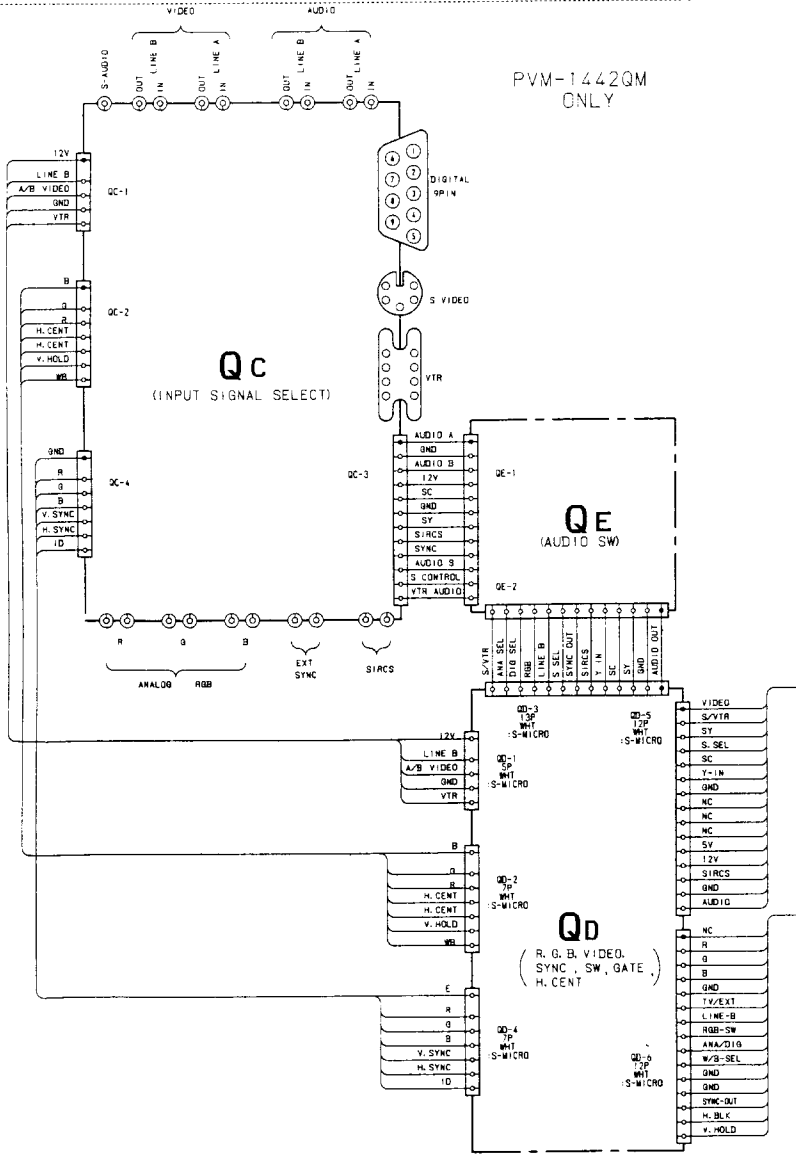
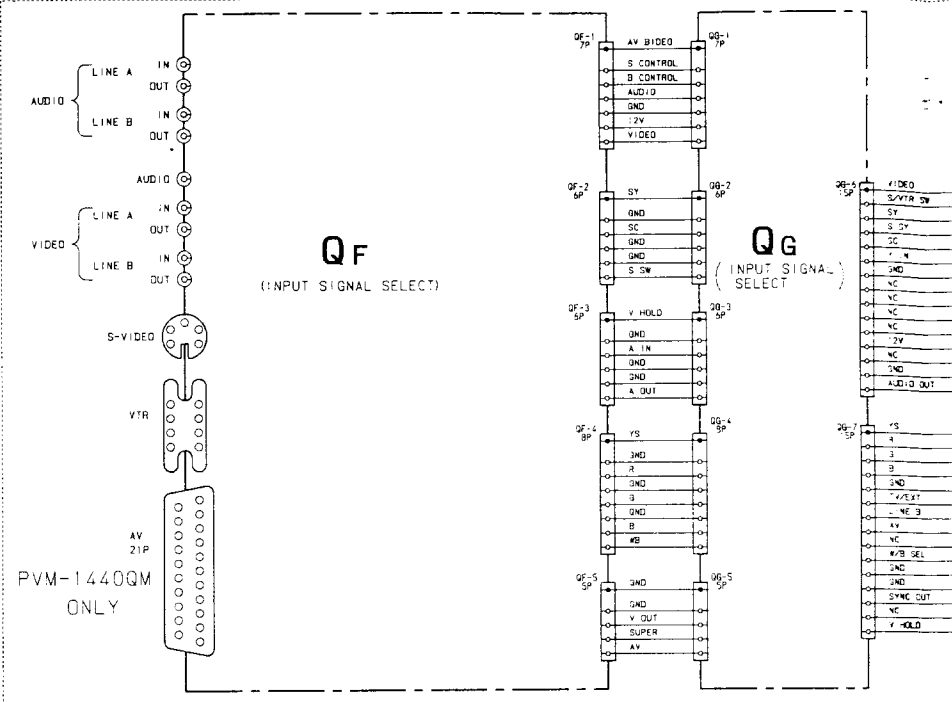
- (4) Adjust L405 (B-Y) so that the non-colored portion level becomes flat.

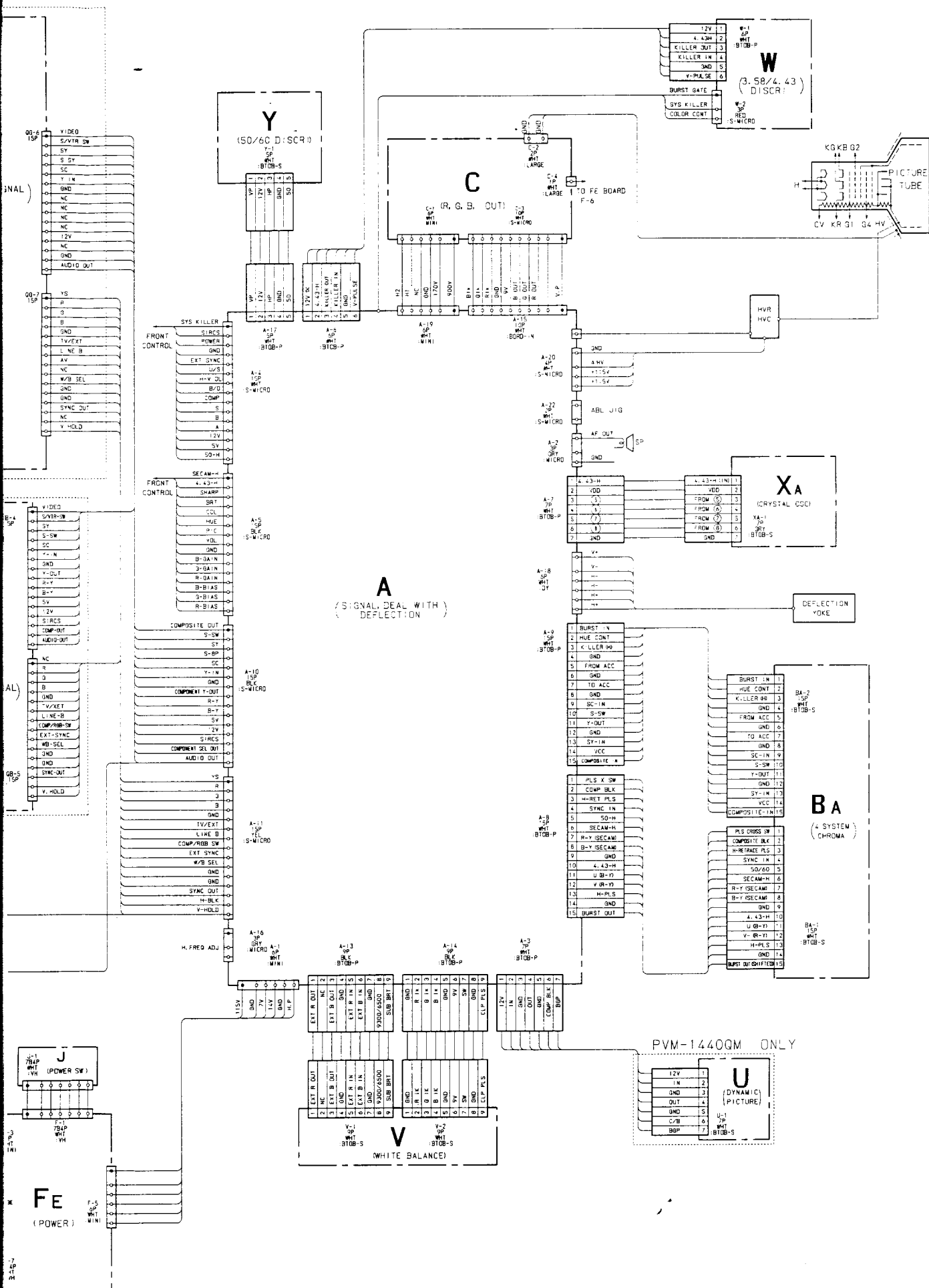




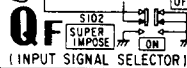
6-1. FRAME SCHEMATIC DIAGRAM

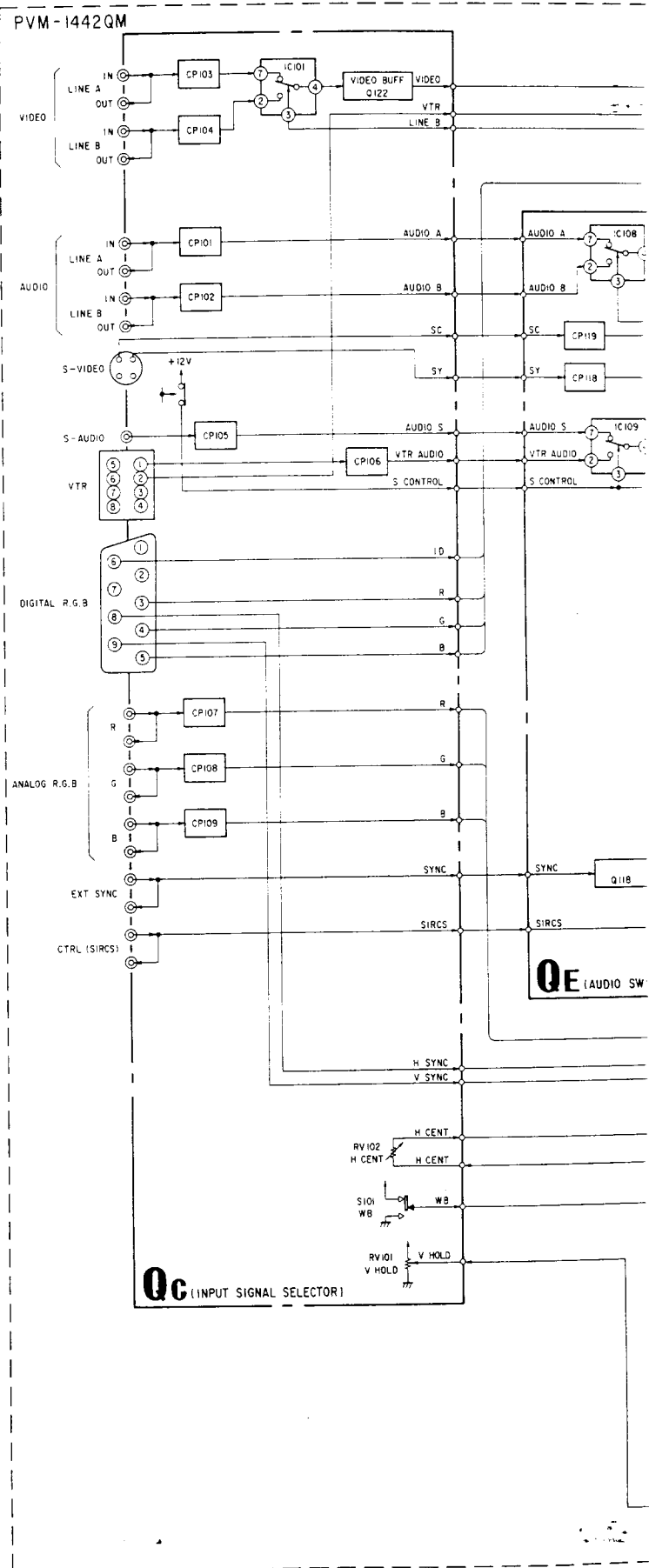
For Service Manuals
MAURITRON SERVICES
8 Cherry Tree Road, Chinnor
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Tel (01844) 351694
Fax (01844) 352554
email:- mauritron@dial.pipex.com

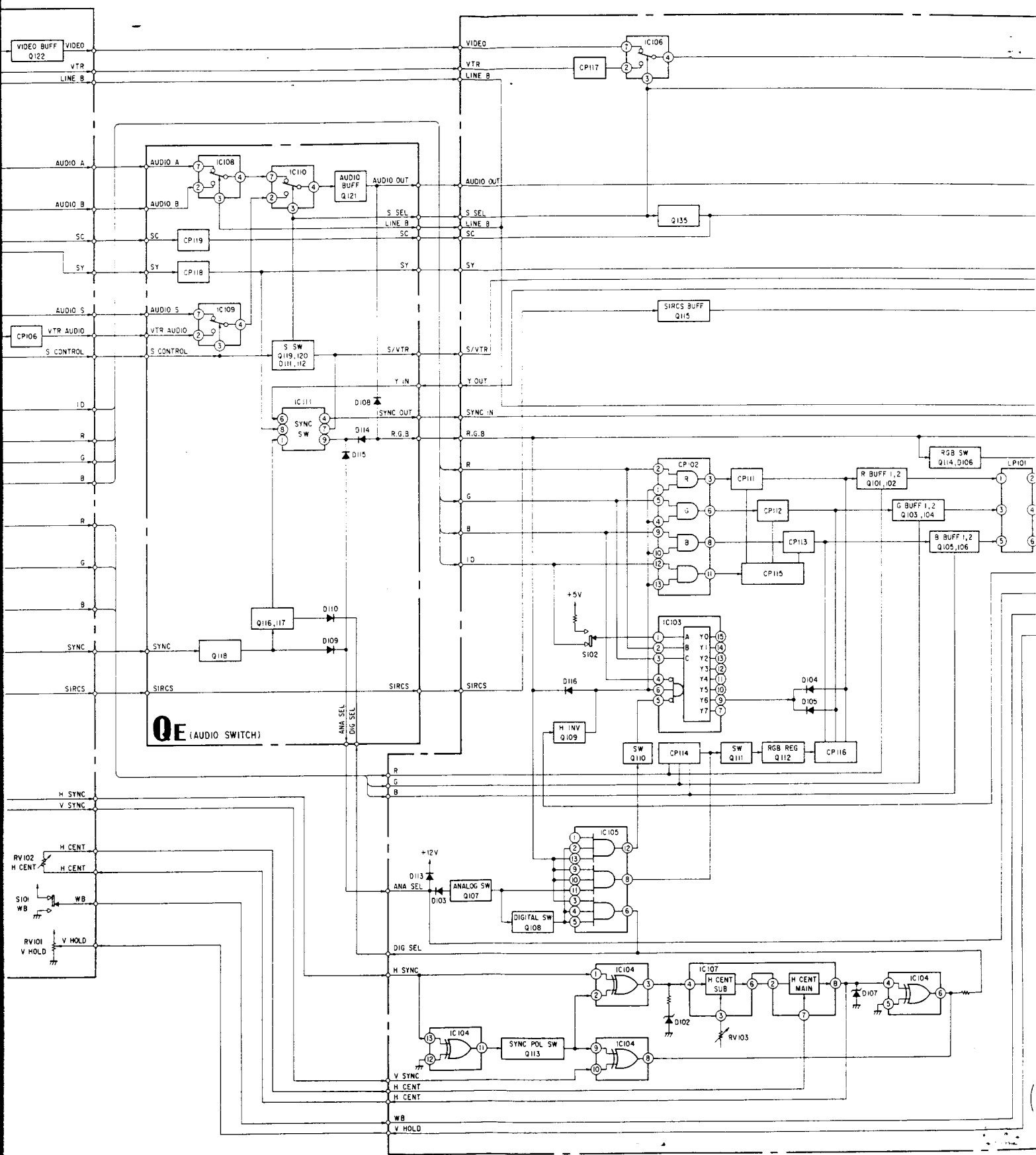


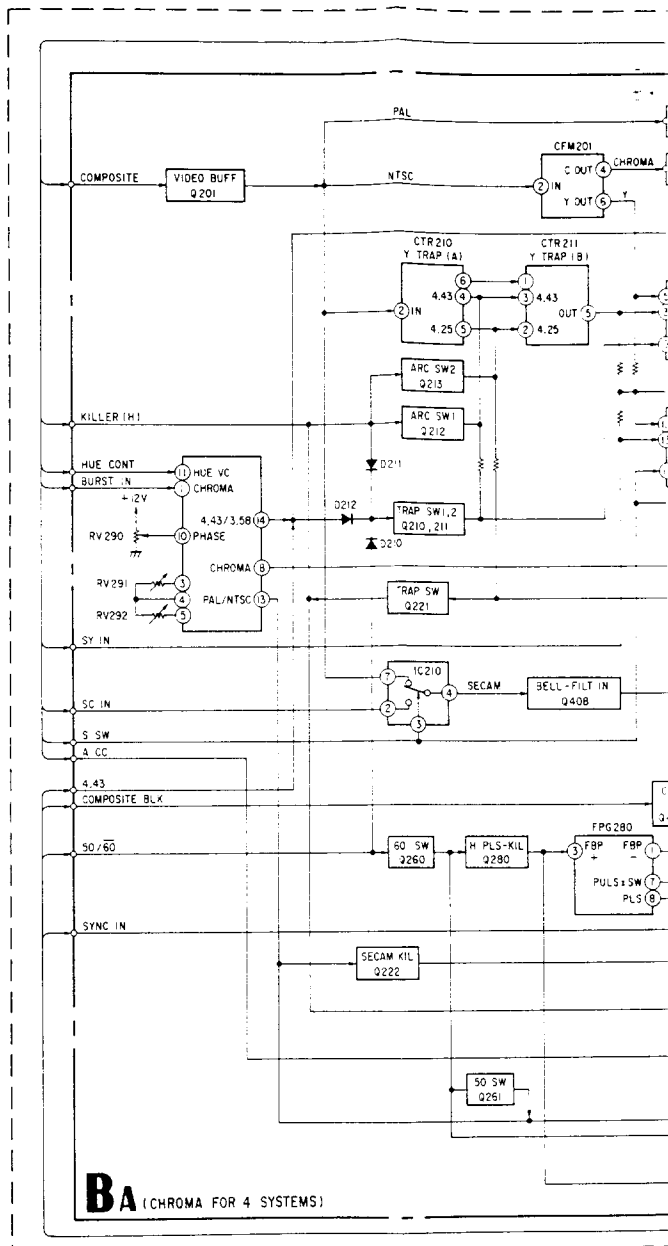


6-2. BLOCK DIAGRAMS

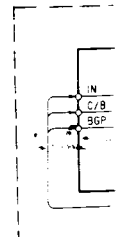


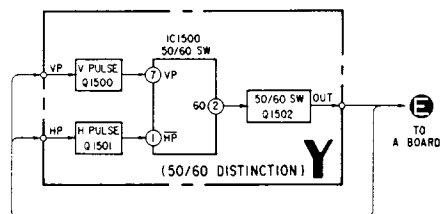
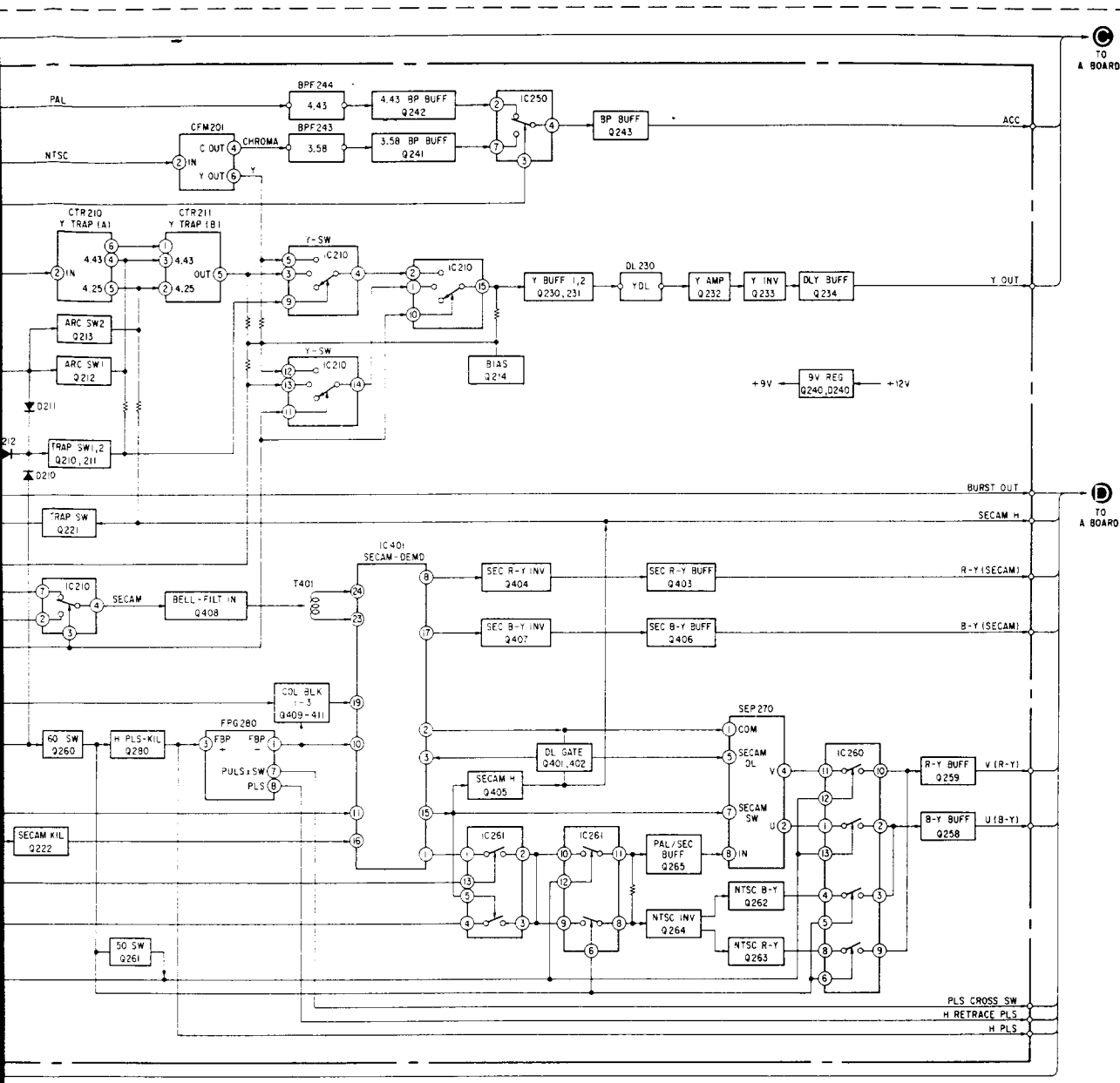




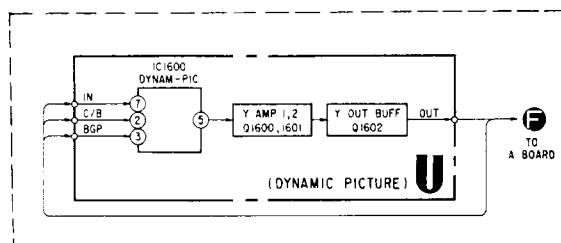


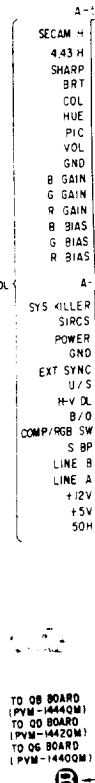
PVM-144(

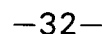


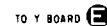


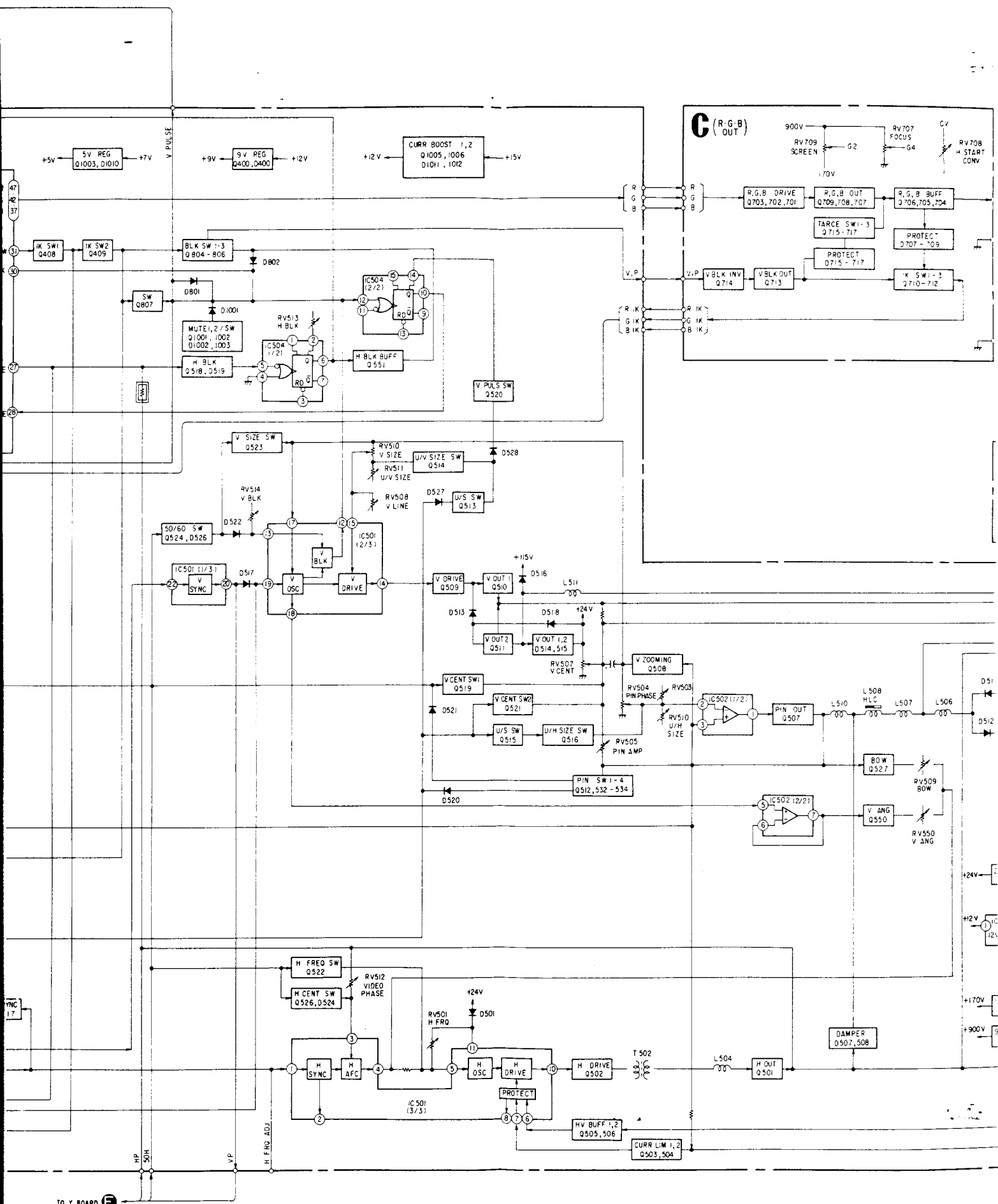
PVM-1440QM

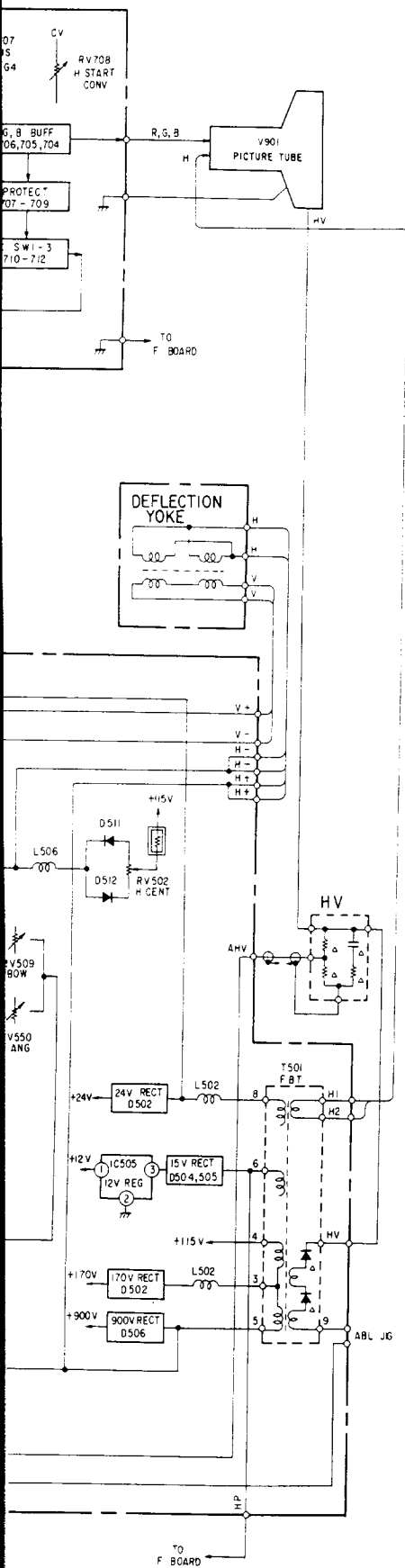








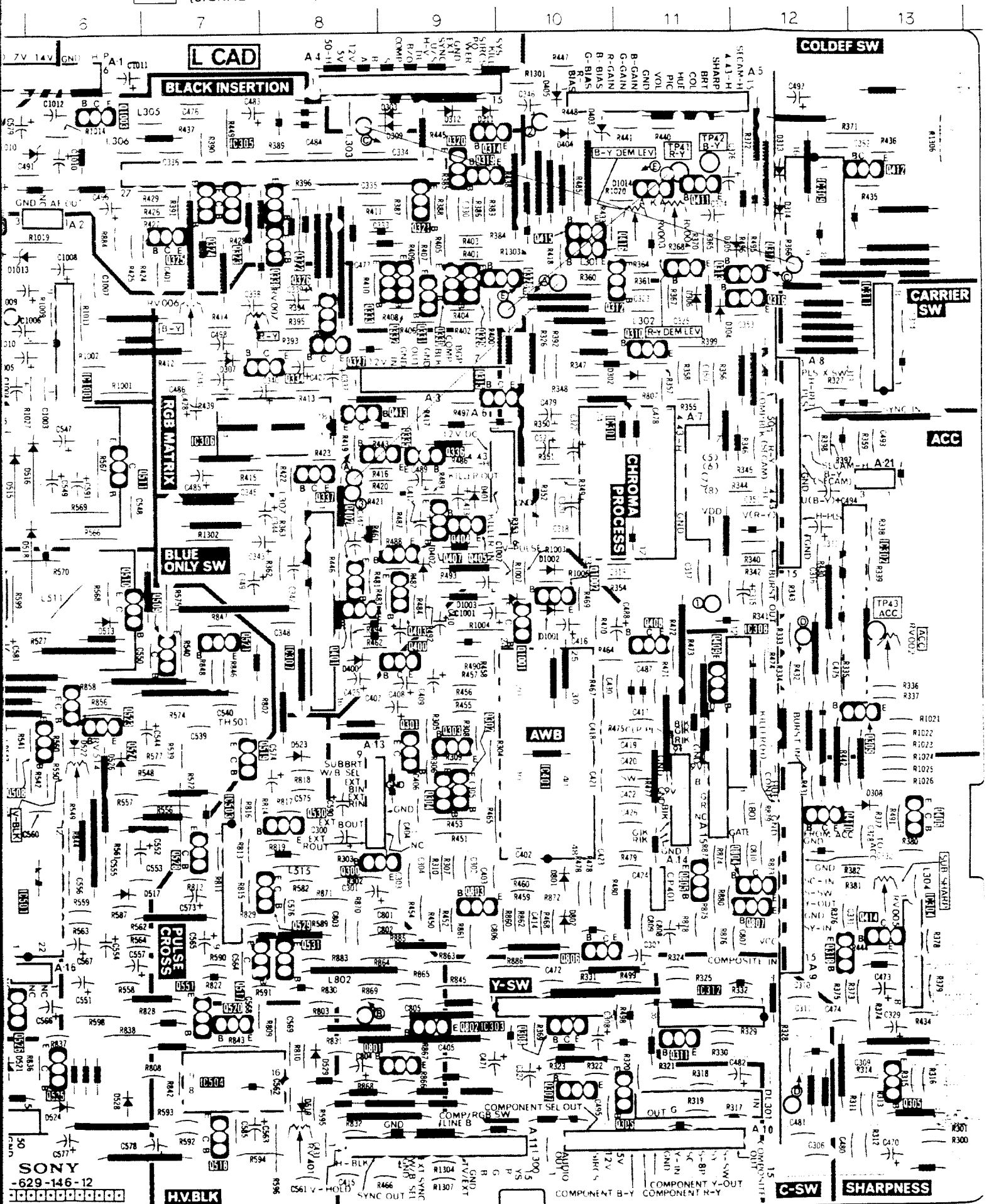




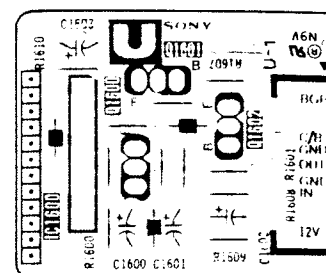


A

[SIGNAL PROCESS, DEFLECTION SYSTEM]



— U Board — (PVM-1440QV)



U

[DYNAMIC
PICTURE]

W

[3.58/4.43
DISTINCTION]

$$X_A$$

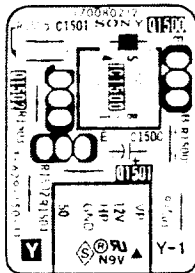
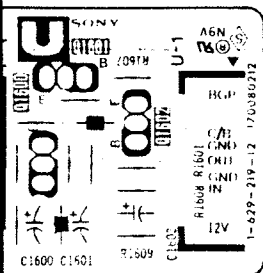
```
[CRYSTAL]
[OSC]
```

Y

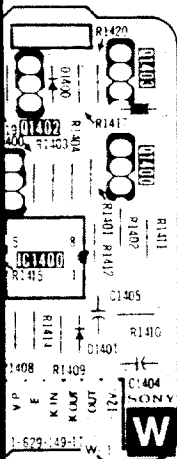
50/60
DISTINCTION

board — (PVM-1440QM)

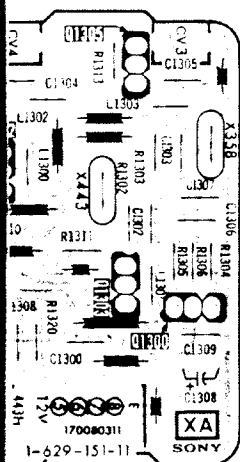
– Y Board –



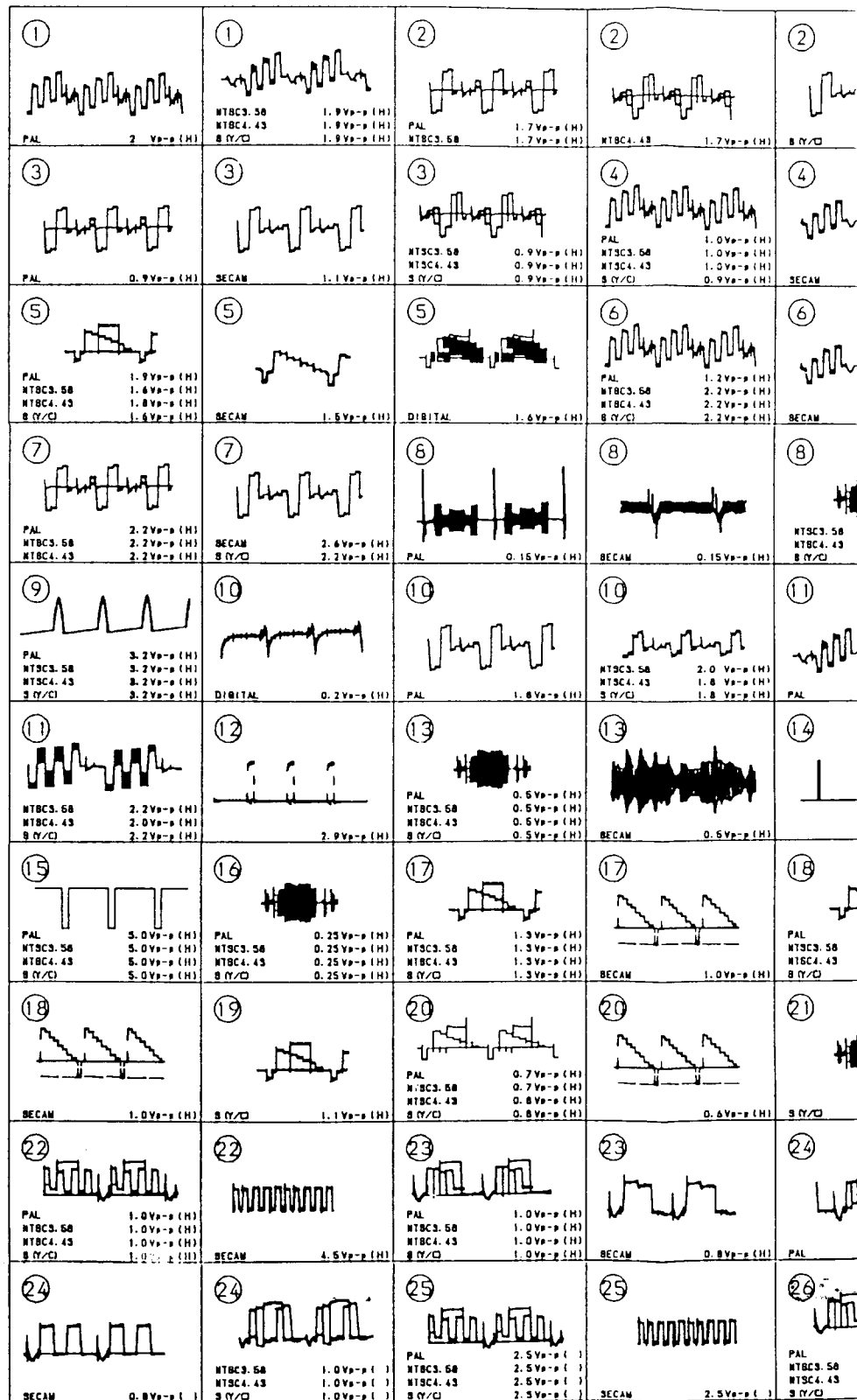
board —



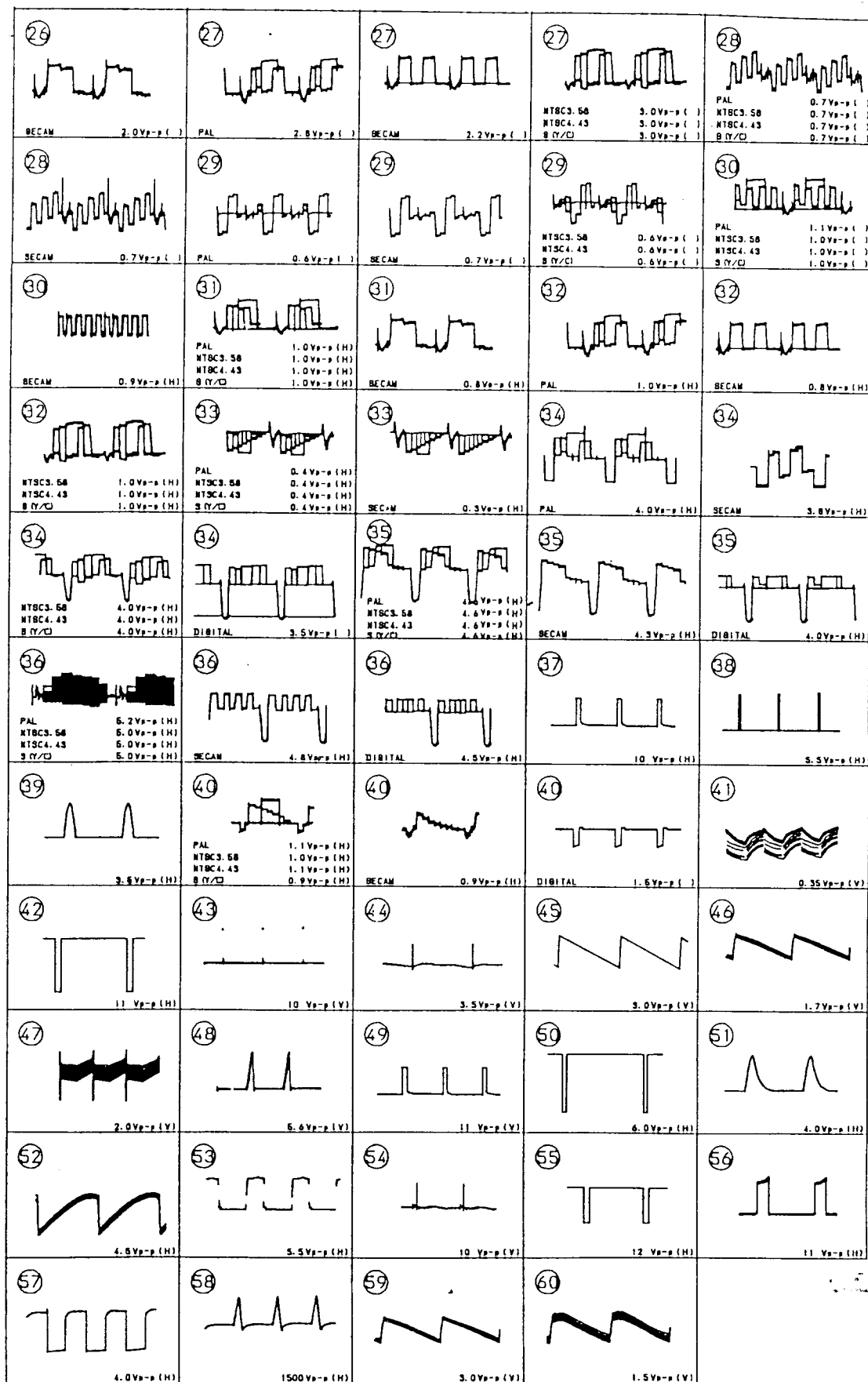
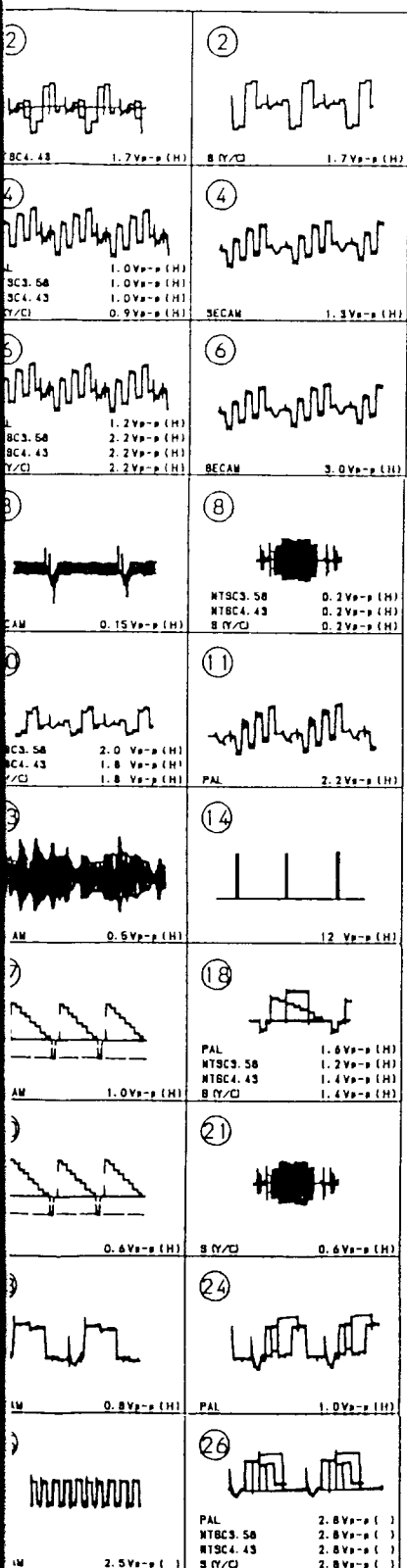
Board —



A BOARD WAVEFORM



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 8 Cherry Tree Road, Chinnor
 Oxfordshire, OX9 4QY.
 Tel (01844) 351694
 Fax (01844) 352554
 email: mauritron@dial.pipex.com



1

2

3

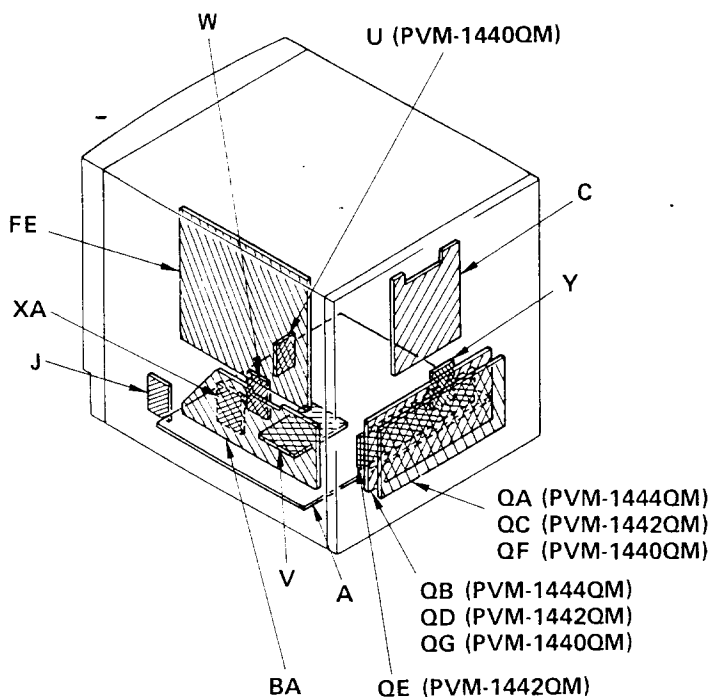
4

5

6

7

8



The inner schematic diagrams (IC302, 304, 305, 307, 308, 503): See page 66-68

Note :

All capacitors are in μF unless otherwise noted.
 pF : μF 50 WV or less are not indicated except for electrolytics.
 Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5 mm

Rating electrical power 1/4W

All resistors are in ohms.

: nonflammable resistor.

: fusible resistor.

: internal component.

: panel designation and adjustment for repair.

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When replacing the part in below table be sure to perform the related adjustment.

Part replaced	Adjustment (%)
IC501, Q503, Q504, Q505, Q506, D509, D510, C505, C520, C524, C525, C526, C527, C528, C529, C530, C531, R500, R506, R516, R517, R518, R519, R520, R521, R522, R523, R524, R525, R526, R528, R804, NL501, HVR	R500 (HOLD-DOWN)

All voltages are in V.

Voltage are dc with respect to ground unless otherwise noted.

Readings are taken with a color-bar signal input.

Readings are taken with a PAL color-bar signal input.

Voltage variations may be noted due to normal production tolerance.

: B+ bus.

: B- bus.

: signal path.

No mark : with PAL color-bar signal received or common voltage.

: with SECAM color-bar signal received.

: with NTSC 3.58 color-bar signal received.

: with NTSC 4.43 color-bar signal received.

A BOARD

IC NO.	PIN NO.	PAL	SECAM	NTSC 3.58	NTSC 4.43	S-VIDEO	DIGITAL
IC301	(1)	8.5	8.5	8.4	8.4	8.6	8.6
	(2)	8.4	2.2	8.4	8.4	8.4	2.2
	(3)	8.5	7.5	8.5	8.5	8.5	7.5
	(4)	1.4	1.4	1.4	1.4	1.4	2.3
IC302	(1)	0	0	0	0	3.8	0.4
	(2)	0	2.8	2.8	2.8	2.4	2.4
IC303	(1)	7.0	10.2	7.0	7.0	7.0	7.0
	(2)	6.4	9.6	6.4	6.4	6.4	6.4
IC305	(1)	6.9	10.2	6.9	6.9	6.9	6.9
	(2)	6.3	9.6	6.3	6.3	6.3	6.3
	(3)	6.8	10.0	6.8	6.8	6.8	6.8
	(4)	7.9	9.5	7.9	7.9	6.1	6.1
IC306	(1)	6.4	6.3	6.3	6.3	5.0	5.1
	(2)	1.1	1.7	3.0	1.8	1.5	1.5
	(3)	5.1	10.5	5.1	5.1	9.1	9.1
	(4)	9.1	8.9	9.1	9.1	9.1	9.1
IC309	(1)	12.3	0.1	12.3	12.3	12.3	12.3
	(2)	9.1	10.5	9.1	9.1	9.1	9.1
	(3)	4.3	0	4.3	4.3	4.3	0
	(4)	7.3	7.3	7.3	7.3	7.3	7.3
C312	(1)	0	0	0	0	4.9	0.5
	(2)	2.8	0.3	0.3	0.3	0.9	1.1
	(3)	2.7	4.3	4.3	4.3	4.4	4.8
	(4)	2.4	5.3	5.3	5.3	5.3	0
IC401	(1)	5.3	5.7	5.7	5.7	5.0	5.1
	(2)	5.0	5.7	5.5	5.5	2.6	2.6
	(3)	4.3	1.5	1.2	0.8	0.6	0.6
	(4)	0.7	0.2	0.3	0	0	0
	(5)	0.4	0.4	1.1	0.7	0.7	0.7
	(6)	0.5	0.2	0.3	0	0	0
	(7)	0.3	1.2	0.7	0.7	0.6	0.6
	(8)	0.5	3.7	3.2	3.7	3.0	3.0
	(9)	2.9	1.0	1.0	1.0	1.0	1.6
	(10)	0	0	0	0	0	0
	(11)	0	0	0	0	0	0
	(12)	0	0	0	0	0	0

Q NO.	PAL	SECAM	NTSC 3.58	NTSC 4.43	S-VIDEO	DIGITAL
Q310	B	4.3	0	4.3	4.3	0
	C	0.2	0	0.2	0.2	0
	E	0	0	0	0	0
Q316	B	0	0.2	0.3	0	0
	C	0	0	0	0	0
	E	0	0	0	0	0
Q317	B	0	11.7	0.3	0	0
	C	12.3	0.1	12.3	12.3	12.3
	E	0	0	0	0	0
Q322	B	0	0.2	0.3	0	0
	C	0	0	0	0	0
	E	0	0	0	0	0
Q323	B	0	0.2	0.3	0	0
	C	0	0	0	0	0
	E	0	0	0	0	0
Q328	B	9.1	10.5	7.1	7.1	7.1
	C	2.5	11.2	7.7	2.5	2.5
	E	9.8	11.2	7.2	7.8	7.8
Q329	B	2.5	11.2	7.7	2.5	2.5
	C	2.4	10.9	7.4	2.4	2.4
	E	9.7	11.2	7.2	7.8	7.8
Q330	B	2.6	10.4	7.7	2.6	2.6
	C	2.5	10.3	7.6	2.5	2.5
	E	9.6	10.4	7.1	7.7	7.7
Q331	B	2.1	10.5	7.7	2.1	2.1
	C	2.0	10.4	7.6	2.0	2.0
	E	9.5	10.5	7.2	7.8	7.8
Q332	B	2.0	10.4	7.6	2.0	2.0
	C	1.9	10.3	7.5	1.9	1.9
	E	9.4	10.4	7.1	7.7	7.7
Q333	B	2.0	10.4	7.6	2.0	2.0
	C	1.9	10.3	7.5	1.9	1.9
	E	9.4	10.4	7.1	7.7	7.7

TO XA BOARD
XA-1

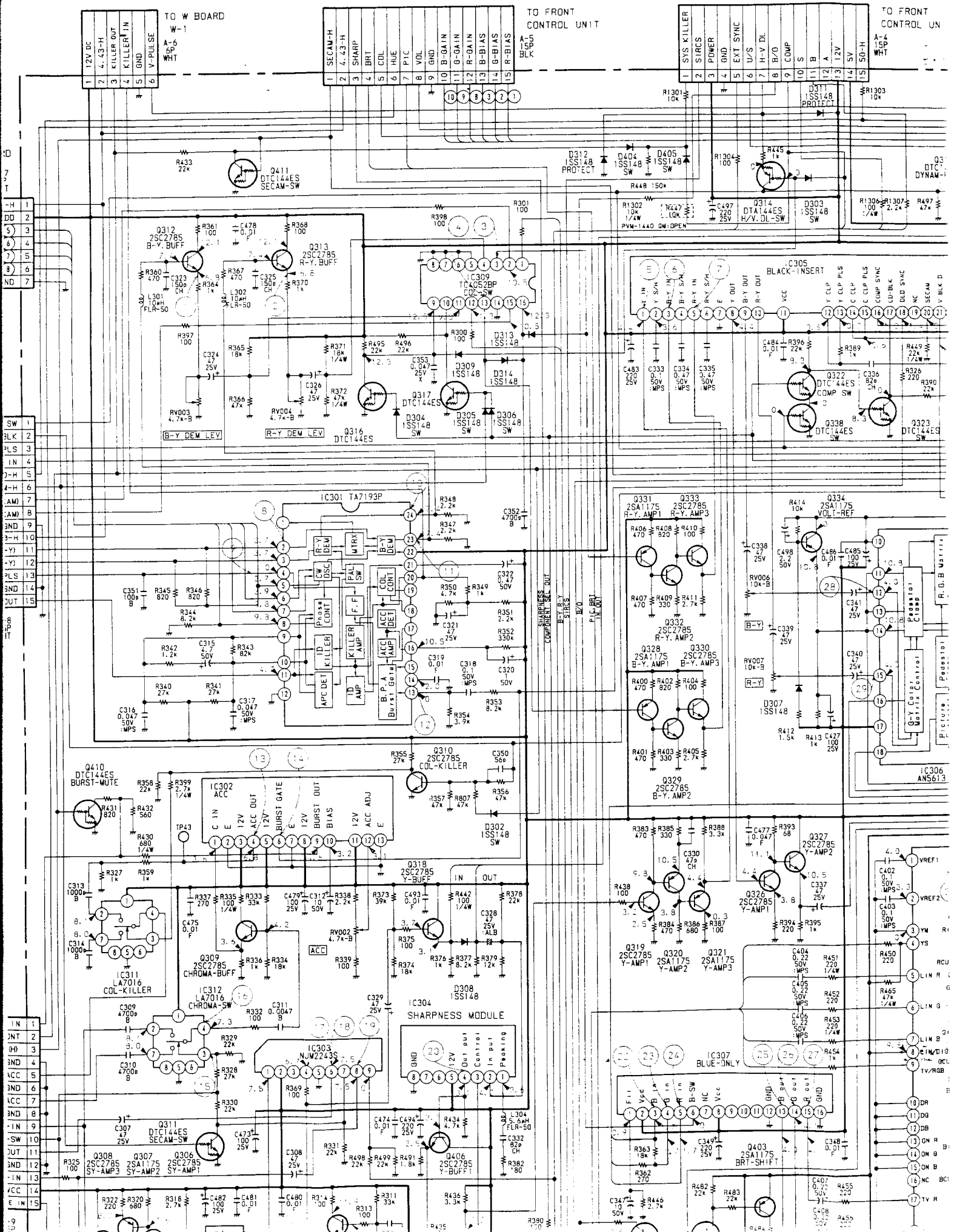
A-7	WHT
4.43-H	1
VDD	2
(5)	3
(6)	4
(7)	5
(8)	6
GND	7

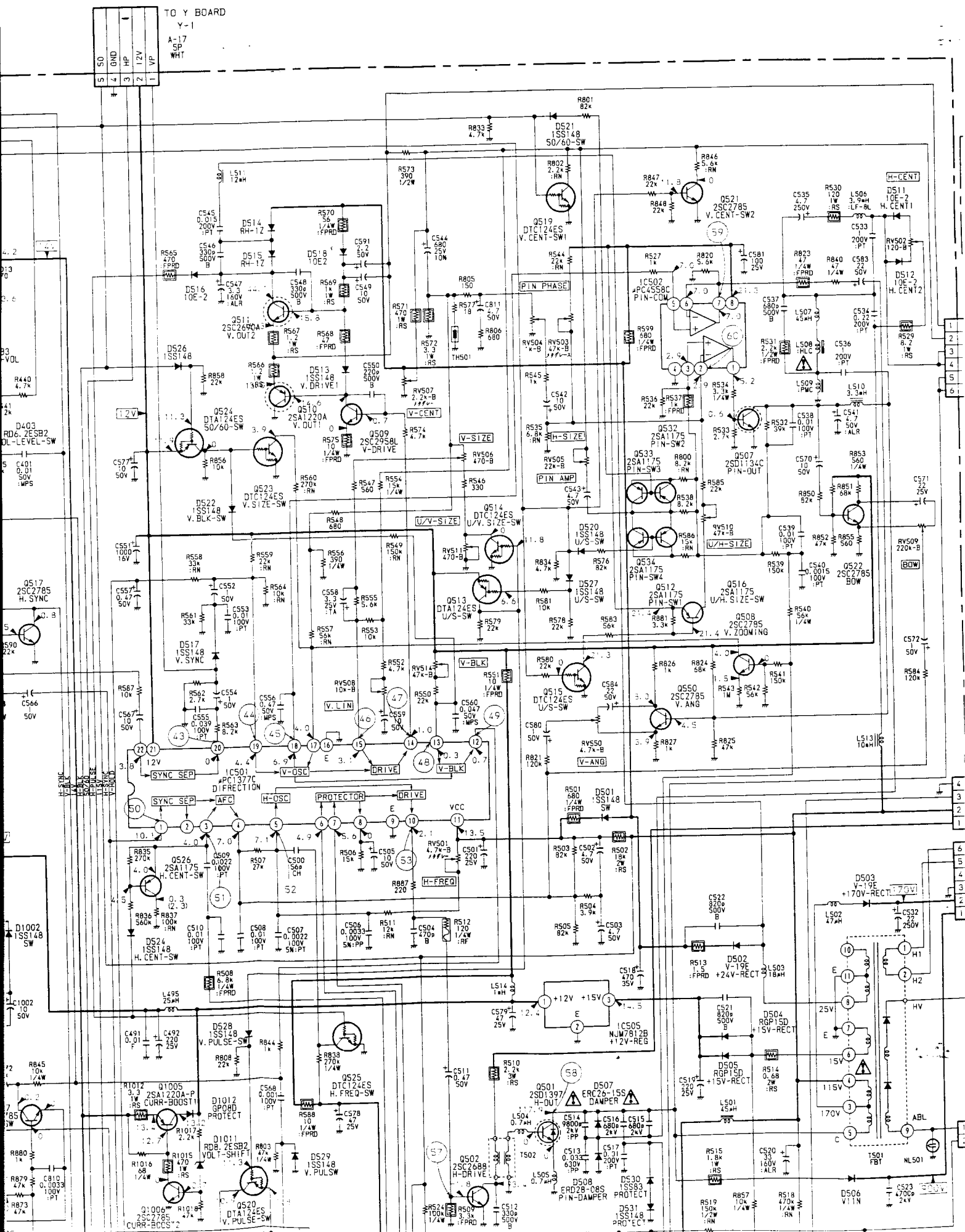
PLS X SW	1
COMP BLK	2
H-RET PLS	3
SYNC IN	4
50-H	5
SECAM-H	6
R-Y (SECAM)	7
B-Y (SECAM)	8
GND	9
4.43-H	10
U (B-Y)	11
V (R-Y)	12
H-PLS	13
GND	14
BURST OUT	15

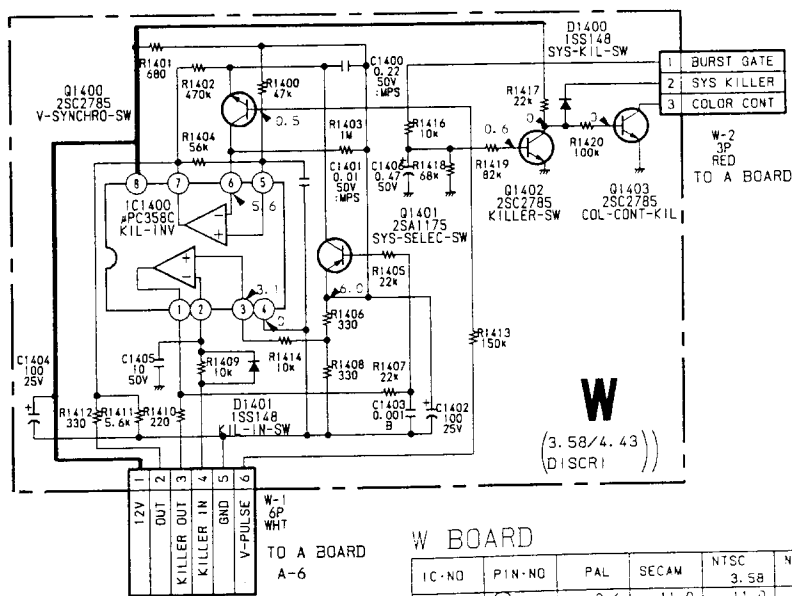
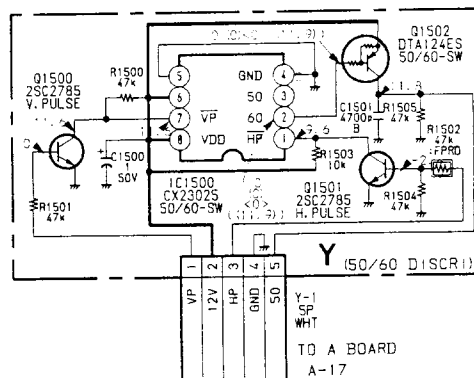
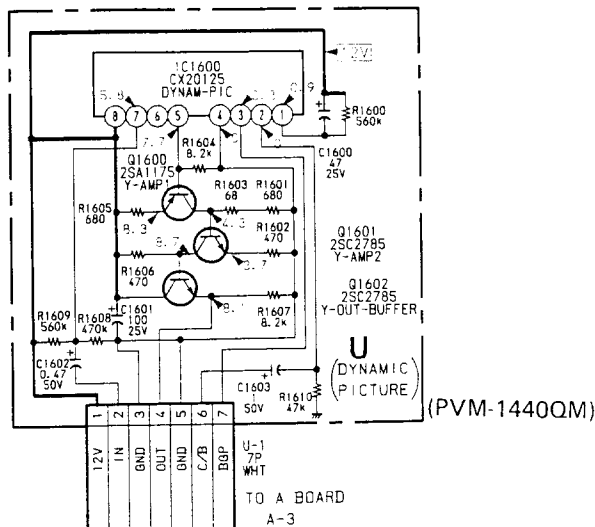
TO BA BOARD
BA-1

A-8	15P
WHT	

Q410
DTC144ES
BURST-MUTER431
820C313
1000pFC314
1000pFR327
1KC310
4.7uFC311
4.7uFC312
4.7uFC313
4.7uFC314
4.7uFC315
4.7uFC316
4.7uFC317
4.7uFC318
4.7uFC319
4.7uFC320
4.7uFC321
4.7uFC322
4.7uF

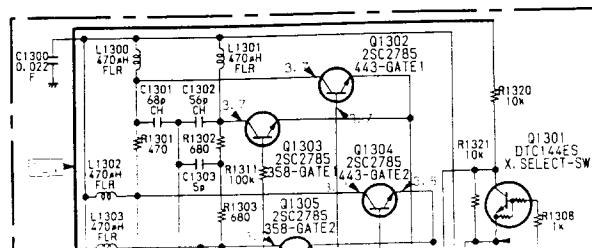






W BOARD					
IC-NO	PIN-NO	PAL	SECAM	NTSC 3.58	NTSC 4.43
IC1400	(1)	0.6	11.0	11.0	0.5
	(2)	8.3	2.2	2.2	8.4
	(5)	8.2	3.8-7.1		8.3
	(7)	10.9			10.9




Q NO.		PAL	SECAM	NTSC 3.58	NTSC 4.43
Q1400	B				
	C				
	E	6.0	6.0	6.1	
Q1401	B	5.4	10.9	10.9	5.4
	C	6.0	4.5-7.3	4.5-7.3	6.0
	E				
Q1403	B				
	C	7.0	6.8	5.9	5.8
	E				






Note :

- All capacitors are in μF unless otherwise noted.
pF : μF 50 WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5 mm
Rating electrical power 1/4W


- All resistors are in ohms.
-  : nonflammable resistor.
-  : fusible resistor.
- Δ : internal component.
-  : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- When replacing the part in below table be sure to perform the related adjustment.

Part replaced	Adjustment (※)
IC501, Q503, Q504, Q505, Q506, D509, D510, C505, C520, C524, C525, C526, C527, C528, C529, C530, C531, R500, R506, R516, R517, R518, R519, R520, R521, R522, R523, R524, R525, R526, R528, R804, NL501, HVR	R500 (HOLD-DOWN)

- All voltages are in V.
- Voltage are dc with respect to ground unless otherwise noted.
- Readings are taken with a color-bar signal input.
- Readings are taken with a PAL color-bar signal input.
- Voltage variations may be noted due to normal production tolerance.
-  : B+ bus.
-  : B- bus.
-  : signal path.
- No mark : with PAL color-bar signal received or common voltage.
- () : with SECAM color-bar signal received.
- < > : with NTSC 3.58 color-bar signal received.
- (()) : with NTSC 4.43 color-bar signal received.
- [] : with S (Y/C) color-bar signal received.
- { } : with disital (9 pin in) color-bar signal received.
- ※ : measurement impossibility.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE WIREWOUND
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.

IC301	(1)	8.4	2.4	2.4	2.4	2.4	2.4
IC302	(1)	2.4	0	0	0	0	0
IC303	(1)	0	0	0	0	0	0
IC304	(1)	2.4	2.4	2.4	2.4	2.4	2.4
IC305	(1)	2.4	10.2	2.4	2.4	2.4	2.4
IC306	(1)	2.4	2.4	2.4	2.4	2.4	2.4
IC309	(1)	1.1	1.7	3.0	1.6	1.5	1.5
IC311	(1)	2.3	2.3	2.3	2.3	2.3	2.3
IC312	(1)	0	0	0	0	0	0
IC401	(1)	2.8	0.9	0.9	0.9	0.9	0.9
IC503	(1)	2.9	1.0	1.0	1.0	1.0	1.0

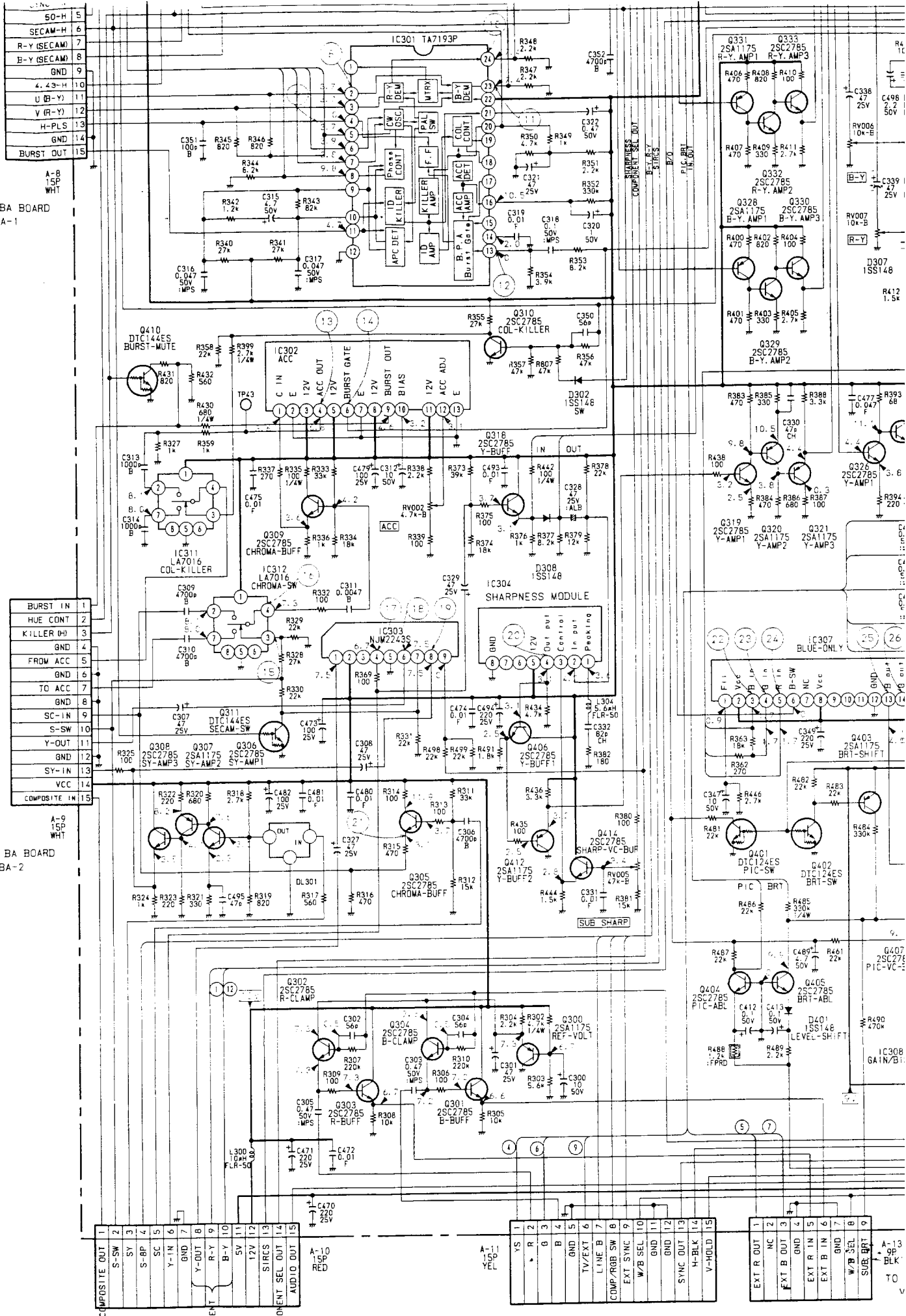
Q NO.	PAL	SECAM	NTSC 3.58	NTSC 4.43	S-VIDEO	DIGITAL
Q310	B 4.3	0	4.3	4.3		
Q316	B 0	0.2	0.3	0	0	0
Q317	B 0	11.7	0.3	0	0.3	0
Q322	B 0	0.2	0.3	0	0	0
Q323	B 0	0.2	0.3	0	0	0
Q328	B 9.1	10.5	9.1	9.1		
Q329	B 2.5	1.2	2.5	2.5		
Q330	B 12.1	11.9	12.1	12.1		
Q331	B 9.1	10.5	9.1	9.1		
Q332	B 2.5	1.2	2.5	2.5		
Q333	B 12.1	11.9	12.1	12.1		
Q335	B 7.4	6.8	6.8	6.8		
Q336	B 4.6	4.6	4.6	4.6		
Q337	B 6.4	6.4	6.4	6.4		
Q401	B 7.9	7.9	7.9	7.9		
Q404	B 7.6	7.6	7.6	7.6		
Q405	B 4.0	4.0	4.0	4.0		
Q407	B 7.5	7.5	7.5	7.5		
Q411	B 0.5	0.5	0.5	0.5		
Q413	B 6.6	6.6	6.6	6.6		
Q415	B 7.9	7.9	7.9	7.9		
Q416	B 0.3	0.3	0.3	0.3		
Q507	B 12.0	12.0	12.0	12.0		
Q516	B 3.4	3.4	3.4	3.4		
Q532	B 3.4	3.4	3.4	3.4		
Q534	B 3.4	3.4	3.4	3.4		

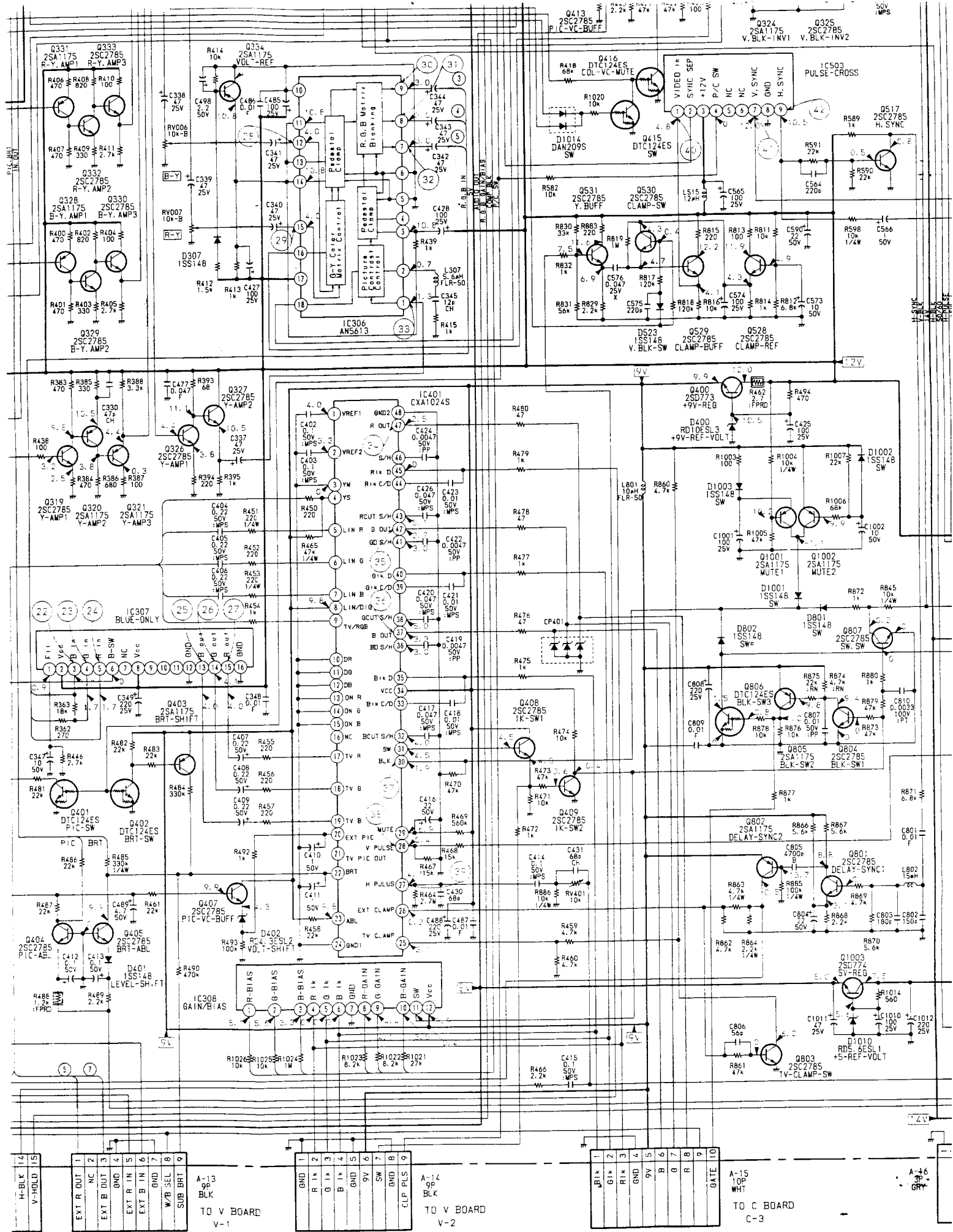
50
SECAM
R-Y (SEC)
B-Y (SEC)
G
4.43
U (B-)
V (R-)
H-P
G
BURST 0

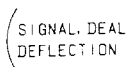
TO BA BOARD
BA-1

BURST
HUE CO
KILLER (C)
G
FROM A
G
TO A
G
SC-
S-
Y-O
G
SY-
V
COMPOSITE

TO BA BOARD
BA-2







1

2

3

4

5

6

7

8

A

B

C

D

E

F

G

H

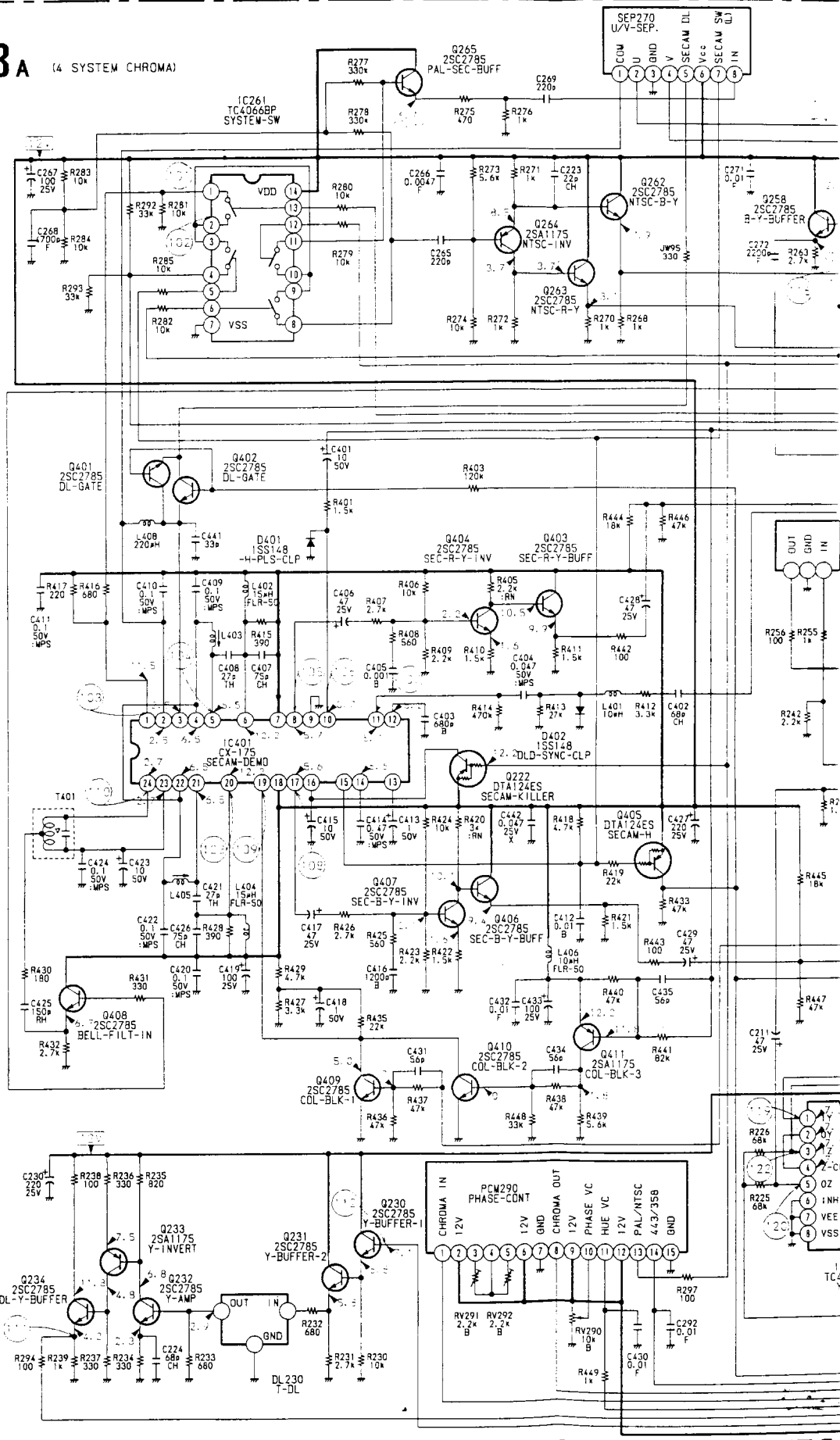
I

J

K

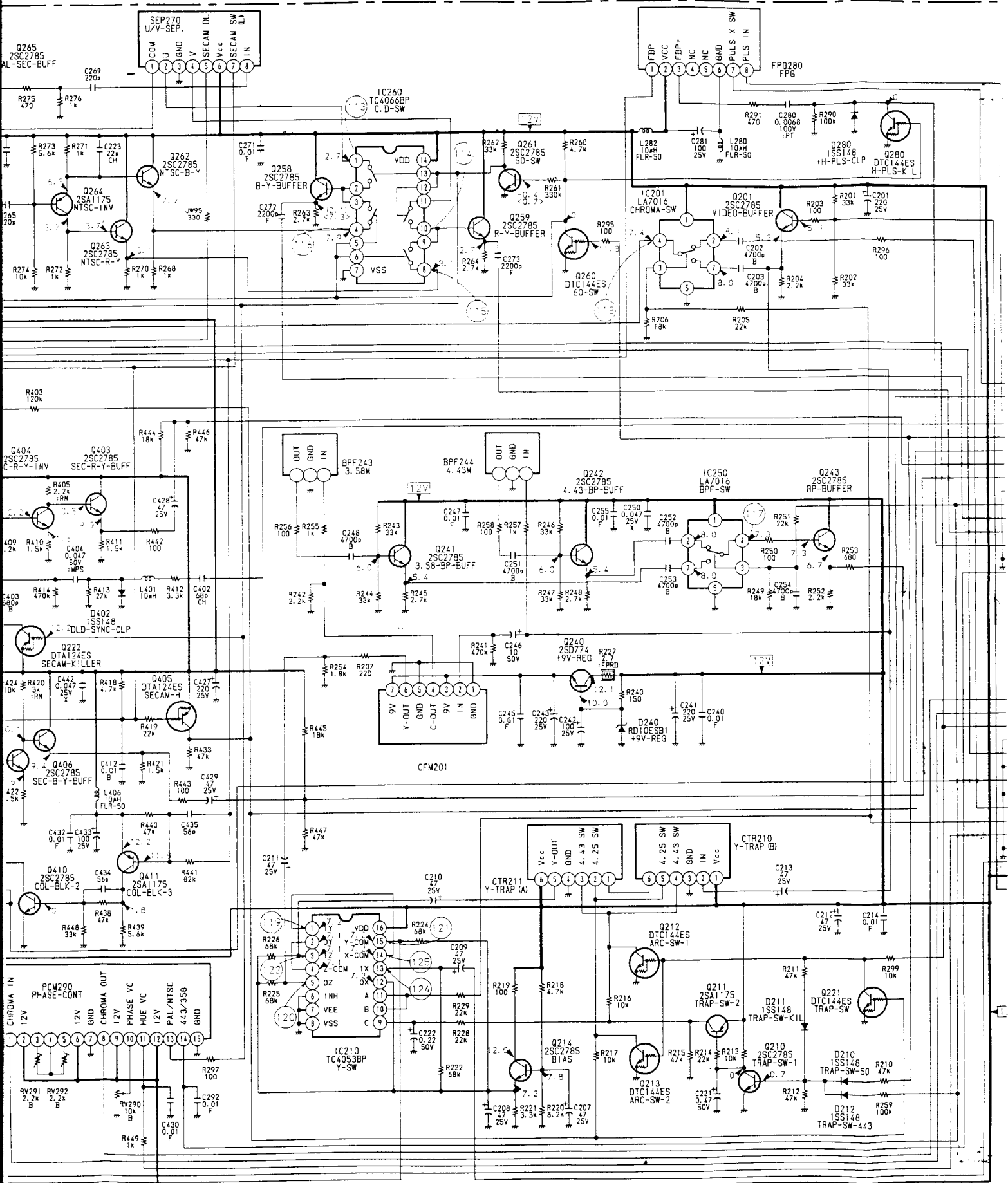
BA

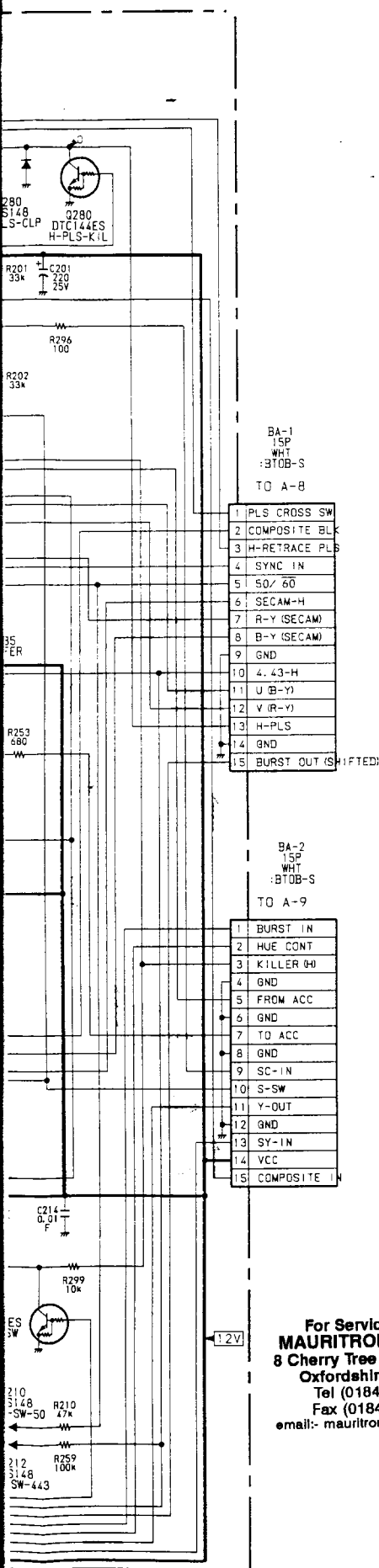
(4 SYSTEM CHROMA)



BA BOARD

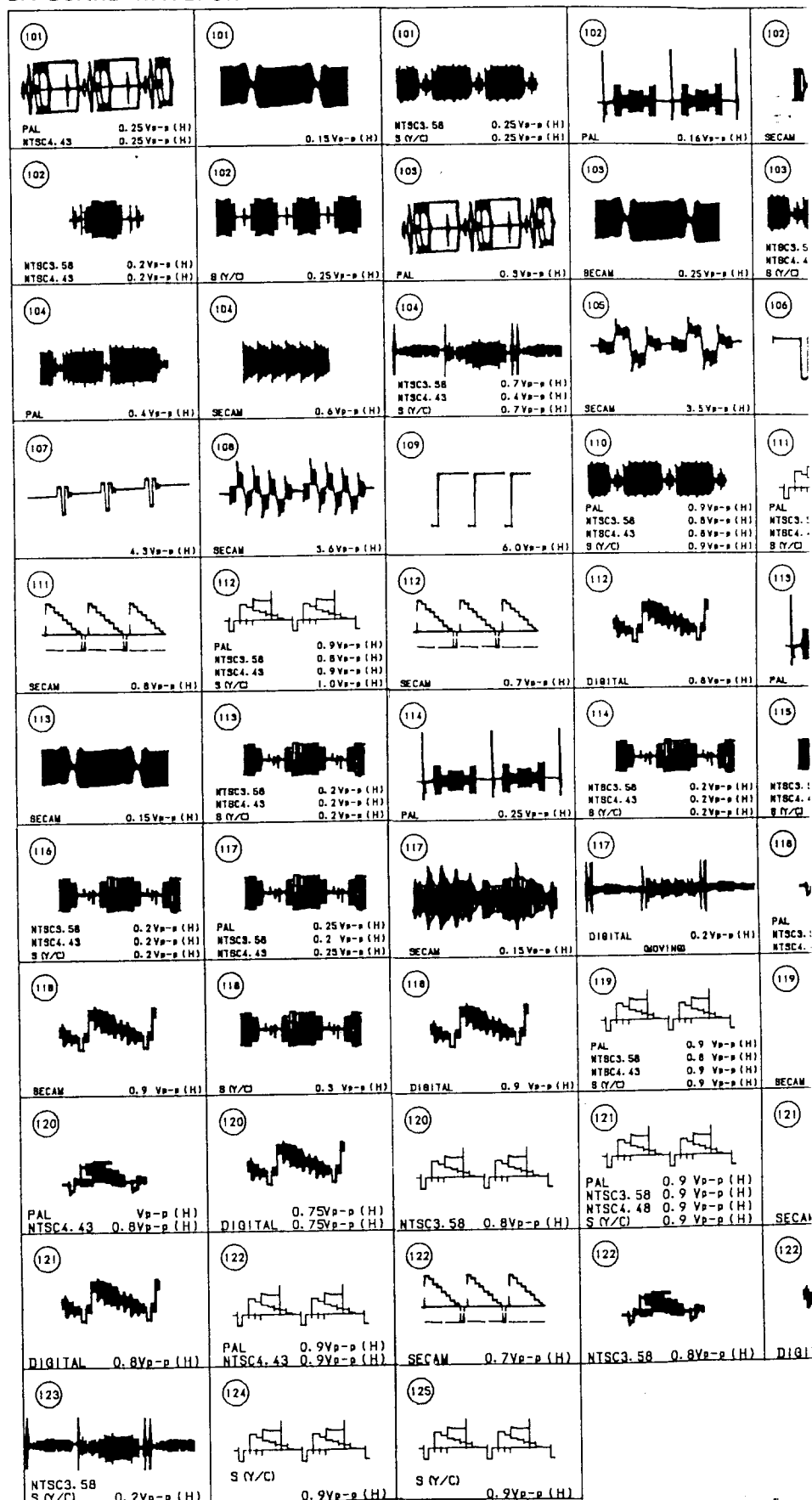
COMP	VALUE	UNIT	REF	DESCRIPTION
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Q202	2SC2785		Q202	DL-Y-BUFFER
Q203	2SC2785		Q203	DL-Y-BUFFER
Q204	2SC2785		Q204	DL-Y-BUFFER
Q205	2SC2785		Q205	DL-Y-BUFFER
Q206	2SC2785		Q206	DL-Y-BUFFER
Q207	2SC2785		Q207	DL-Y-BUFFER
Q208	2SC2785		Q208	DL-Y-BUFFER
Q209	2SC2785		Q209	DL-Y-BUFFER
Q210	2SC2785		Q210	DL-Y-BUFFER
Q211	2SC2785		Q211	DL-Y-BUFFER
Q212	2SC2785		Q212	DL-Y-BUFFER
Q213	2SC2785		Q213	DL-Y-BUFFER
Q214	2SC2785		Q214	DL-Y-BUFFER
Q215	2SC2785		Q215	DL-Y-BUFFER
Q216	2SC2785		Q216	DL-Y-BUFFER
Q217	2SC2785		Q217	DL-Y-BUFFER
Q218	2SC2785		Q218	DL-Y-BUFFER
Q219	2SC2785		Q219	DL-Y-BUFFER
Q220	2SC2785		Q220	DL-Y-BUFFER
Q221	2SC2785		Q221	DL-Y-BUFFER
Q222	2SC2785		Q222	DL-Y-BUFFER
Q223	2SC2785		Q223	DL-Y-BUFFER
Q224	2SC2785		Q224	DL-Y-BUFFER
Q225	2SC2785		Q225	DL-Y-BUFFER
Q226	2SC2785		Q226	DL-Y-BUFFER
Q227	2SC2785		Q227	DL-Y-BUFFER
Q228	2SC2785		Q228	DL-Y-BUFFER
Q229	2SC2785		Q229	DL-Y-BUFFER
Q230	2SC2785		Q230	DL-Y-BUFFER
Q231	2SC2785		Q231	DL-Y-BUFFER
Q232	2SC2785		Q232	DL-Y-BUFFER
Q233	2SC2785		Q233	DL-Y-BUFFER
Q234	2SC2785		Q234	DL-Y-BUFFER
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Q254	2SC2785		Q254	DL-Y-BUFFER
Q255	2SC2785		Q255	DL-Y-BUFFER
Q256	2SC2785		Q256	DL-Y-BUFFER
Q257	2SC2785		Q257	DL-Y-BUFFER
Q258	2SC2785		Q258	DL-Y-BUFFER
Q259	2SC2785		Q259	DL-Y-BUFFER
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Q294	2SC2785		Q294	DL-Y-BUFFER
Q295	2SC2785		Q295	DL-Y-BUFFER
Q296	2SC2785		Q296	DL-Y-BUFFER
Q297	2SC2785		Q297	DL-Y-BUFFER
Q298	2SC2785		Q298	DL-Y-BUFFER
Q299	2SC2785		Q299	DL-Y-BUFFER
Q300	2SC2785		Q300	DL-Y-BUFFER



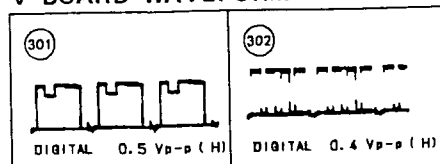


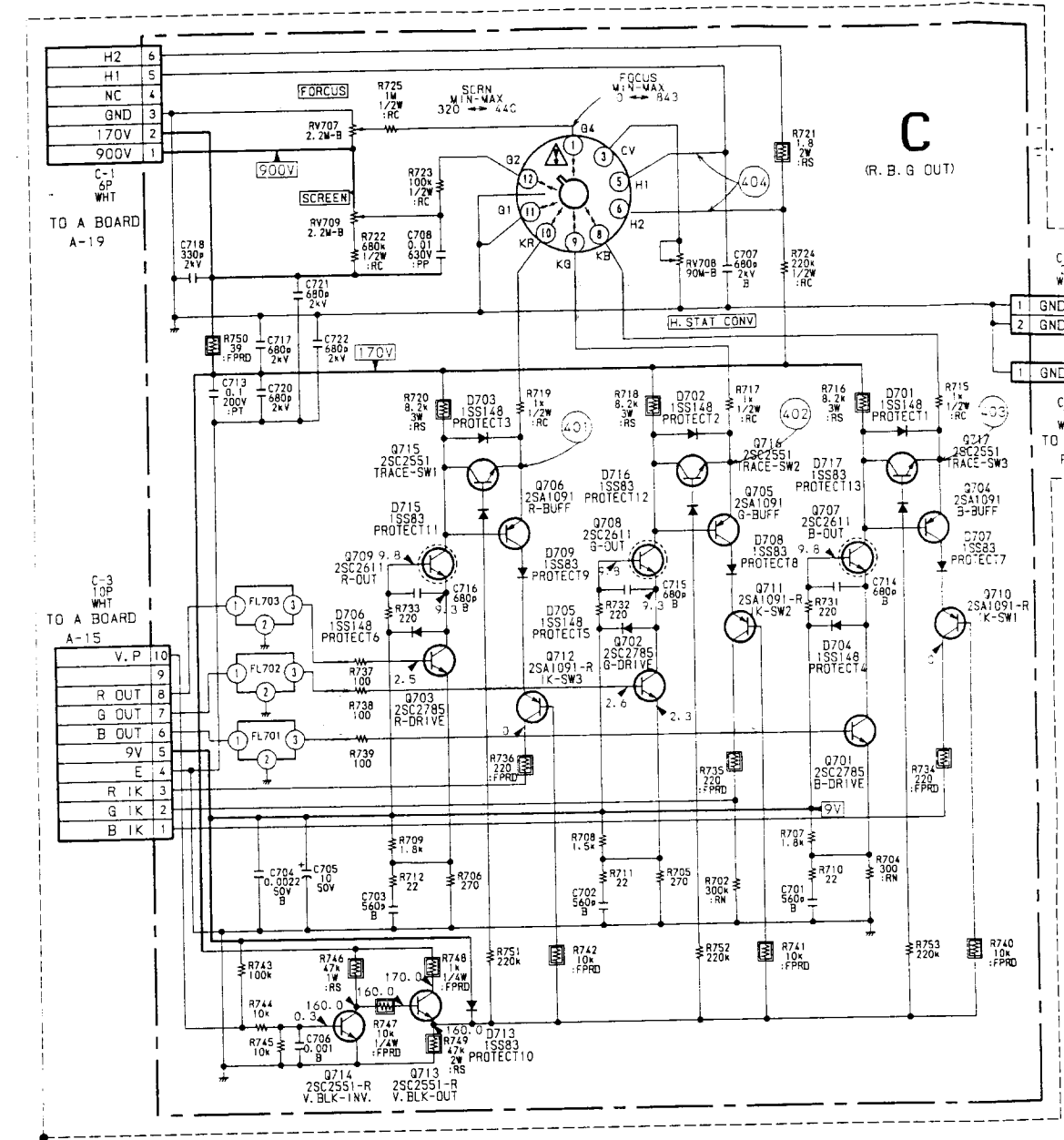
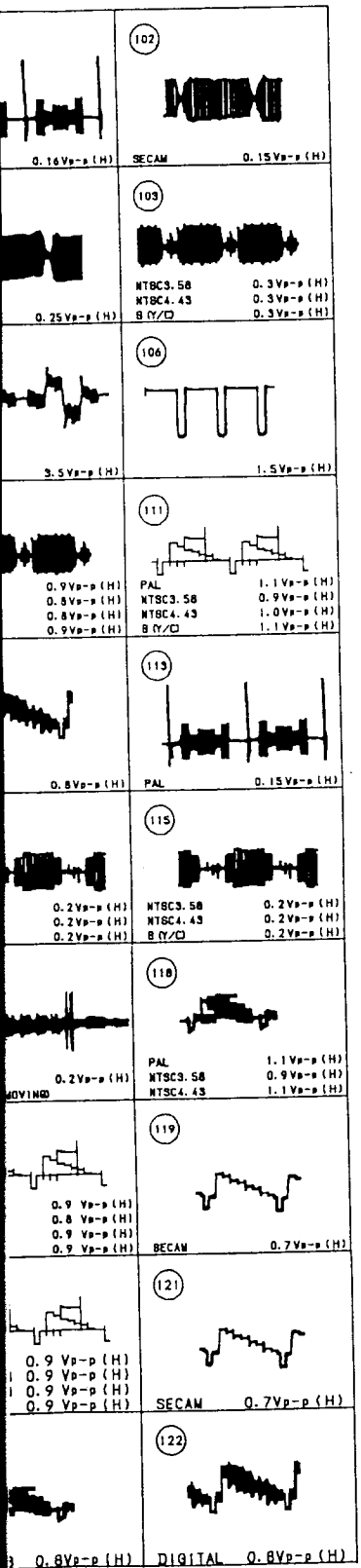
For Service Manuals
MAURITRON SERVICES
 8 Cherry Tree Road, Chinnor
 Oxfordshire, OX9 4QY.
 Tel (01844) 351694
 Fax (01844) 352554
 email:- mauritron@dial.pipex.com

BA BOARD WAVEFORM

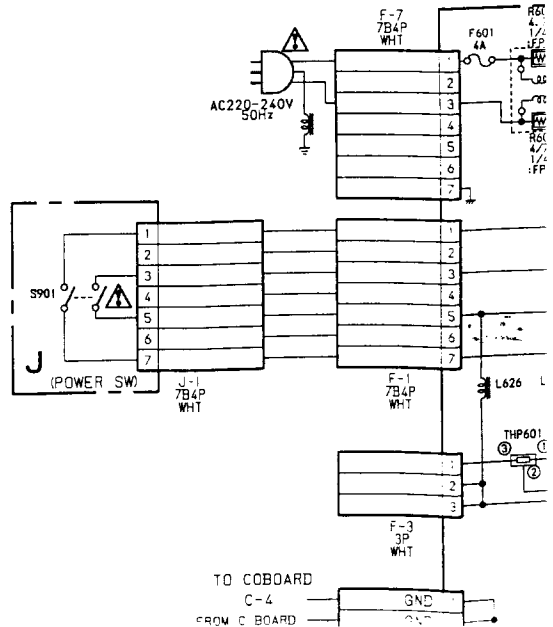


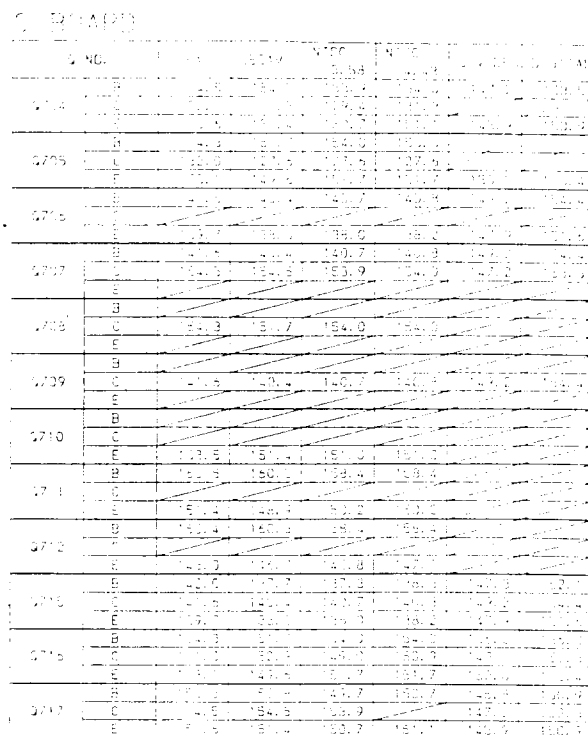
V BOARD WAVEFORM



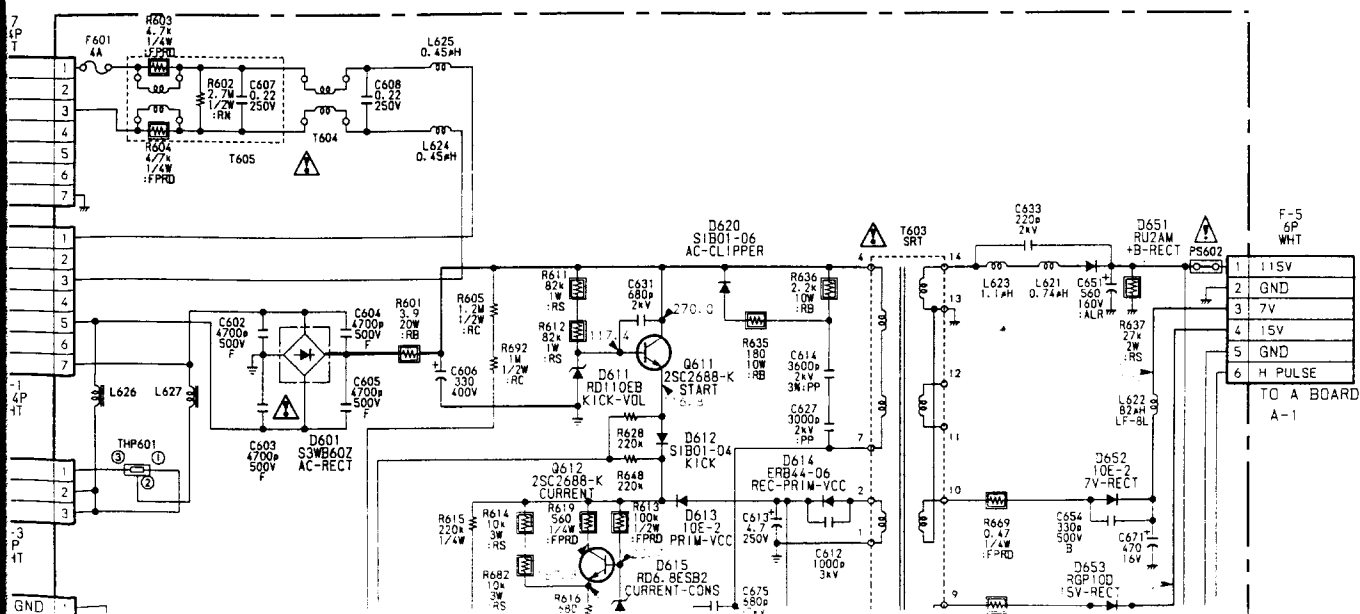


TO F-6

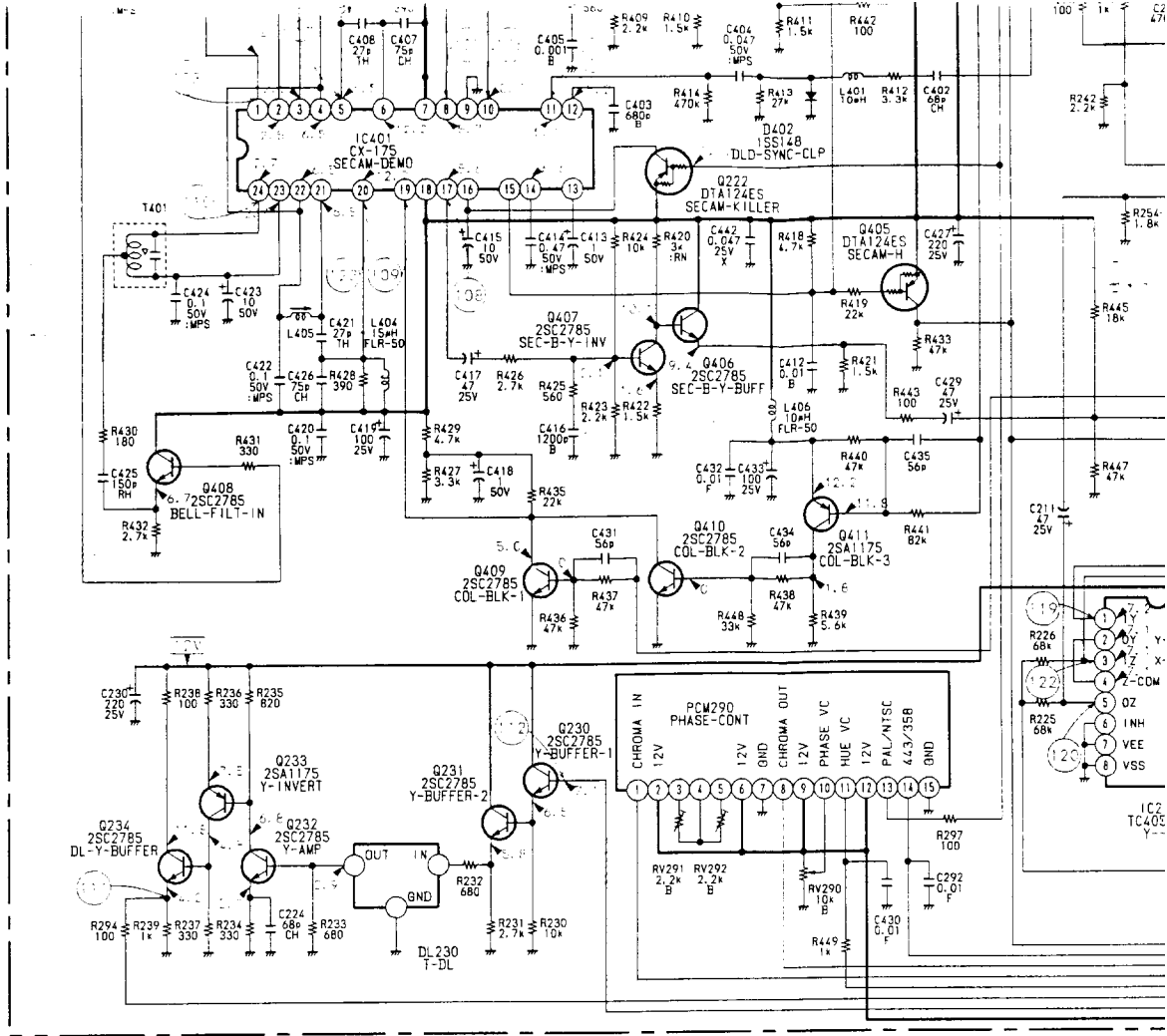




C BOARD WAVEFORM

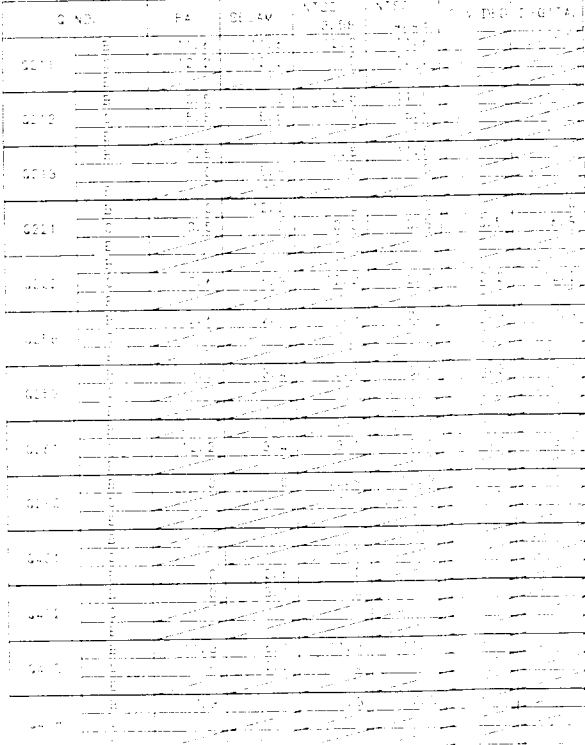


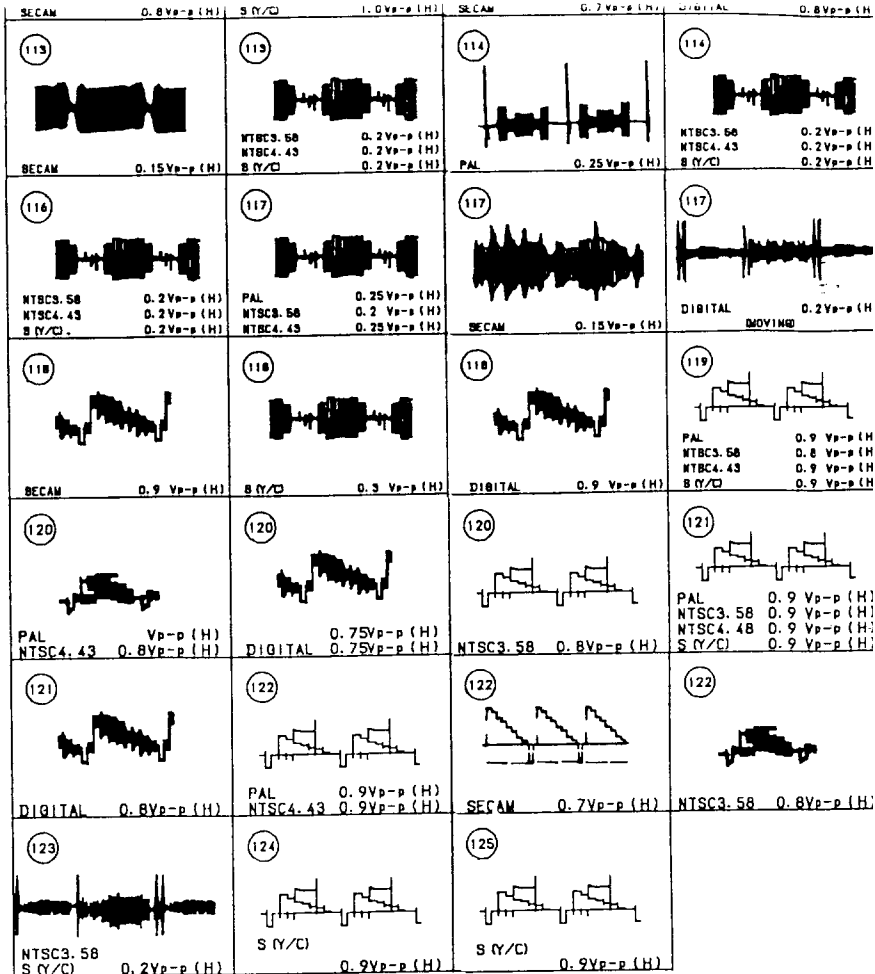
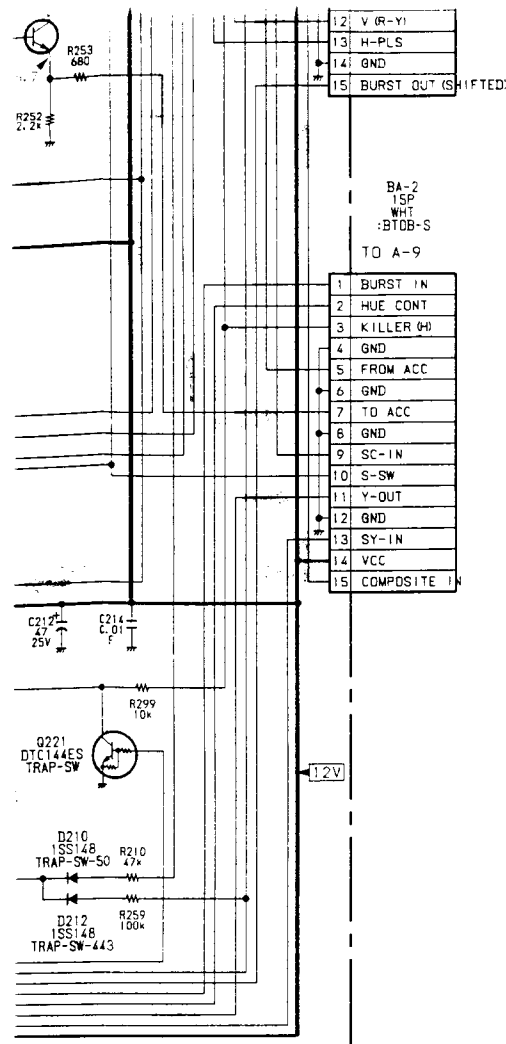
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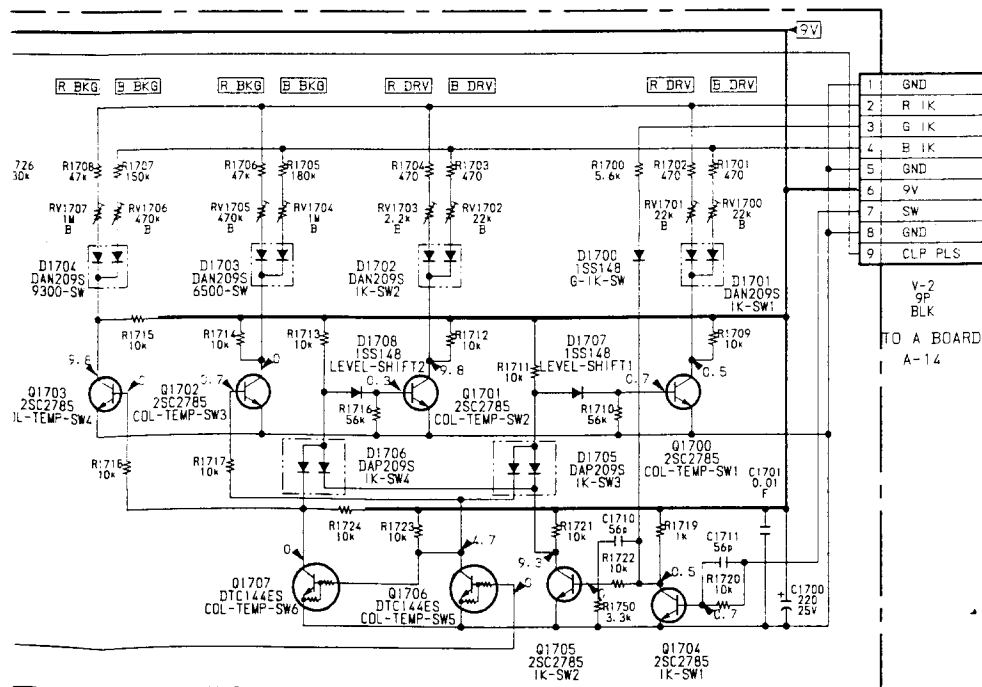
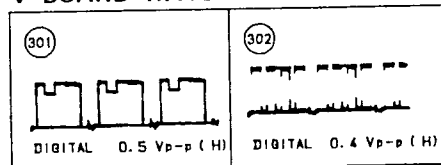
BA BOARD

IC-NO	PIN-NO	PAL	SECAM	NTSC	NTSC	S-VIDEO	D-ATA
IC201	(1)	0	0	0	0	0	0
	(2)	12.2	12.2	0	12.2	0	0
IC210	(1)	0	0	0	0	0	0
	(2)	0	0	0	0	0	0
IC250	(1)	4.7	0.6	0	0	0	0
	(2)	2.6	2.7	7.9	0	0	0
IC260	(1)	0	0	0	0	0	0
	(2)	3.3	3.4	3.1	0	0	0
IC270	(1)	12.2	12.2	0	0	0	0
	(2)	12.2	12.2	0	0	0	0
IC280	(1)	12.2	12.2	10.8	10.8	12.2	0
	(2)	7.3	10.8	7.3	0	0	0
IC290	(1)	12.2	12.2	10.8	10.8	12.2	0
	(2)	7.3	10.8	7.3	0	0	0
IC300	(1)	12.2	12.2	10.8	10.8	12.2	0
	(2)	7.3	10.8	7.3	0	0	0
IC310	(1)	12.2	12.2	10.8	10.8	12.2	0
	(2)	7.3	10.8	7.3	0	0	0
IC320	(1)	12.2	12.2	10.8	10.8	12.2	0
	(2)	7.3	10.8	7.3	0	0	0
IC330	(1)	12.2	12.2	10.8	10.8	12.2	0
	(2)	7.3	10.8	7.3	0	0	0
IC340	(1)	12.2	12.2	10.8	10.8	12.2	0
	(2)	7.3	10.8	7.3	0	0	0
IC350	(1)	12.2	12.2	10.8	10.8	12.2	0
	(2)	7.3	10.8	7.3	0	0	0
IC360	(1)	12.2	12.2	10.8	10.8	12.2	0
	(2)	7.3	10.8	7.3	0	0	0
IC370	(1)	12.2	12.2	10.8	10.8	12.2	0
	(2)	7.3	10.8	7.3	0	0	0
IC380	(1)	12.2	12.2	10.8	10.8	12.2	0
	(2)	7.3	10.8	7.3	0	0	0
IC390	(1)	12.2	12.2	10.8	10.8	12.2	0
	(2)	7.3	10.8	7.3	0	0	0
IC400	(1)	12.2	12.2	10.8	10.8	12.2	0
	(2)	7.3	10.8	7.3	0	0	0

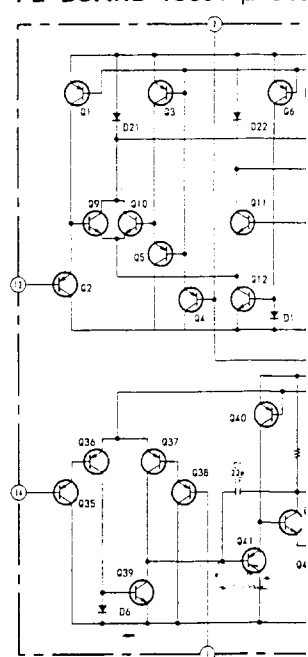


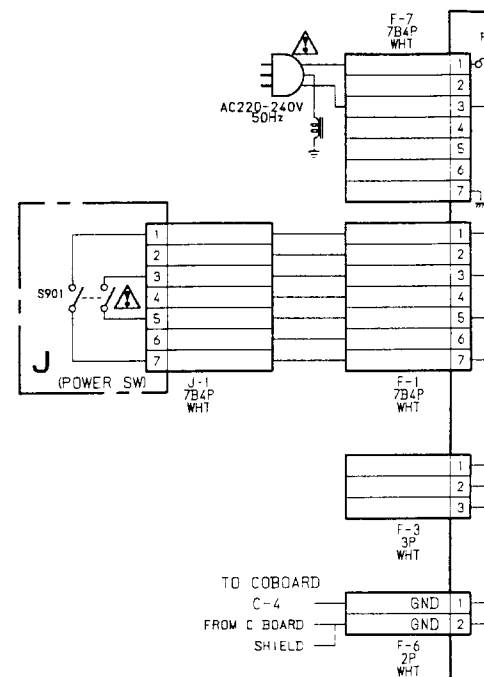
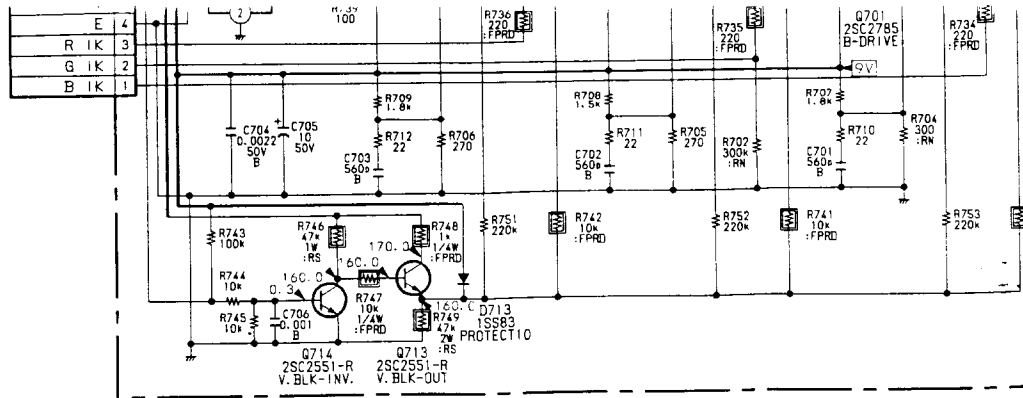


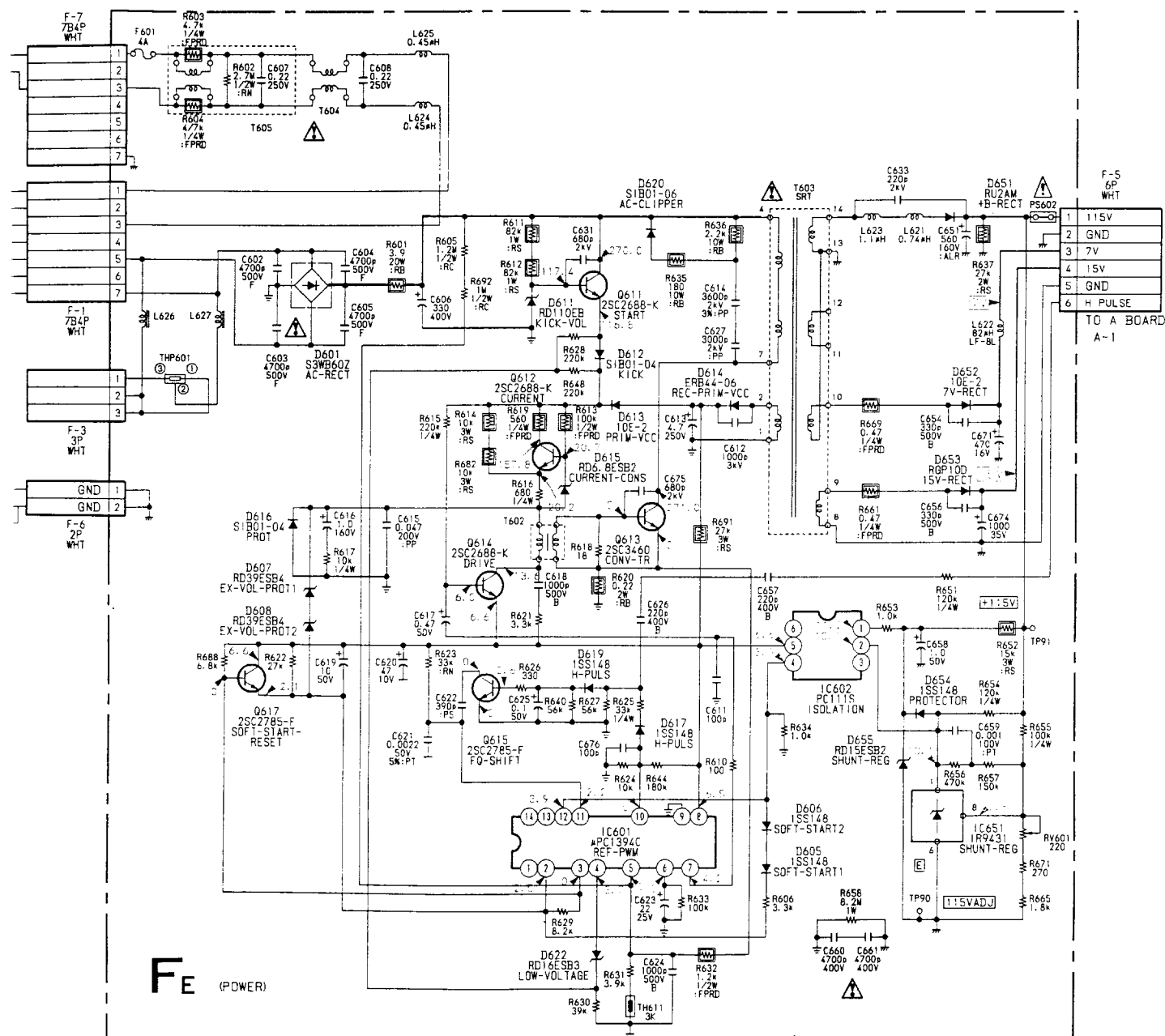
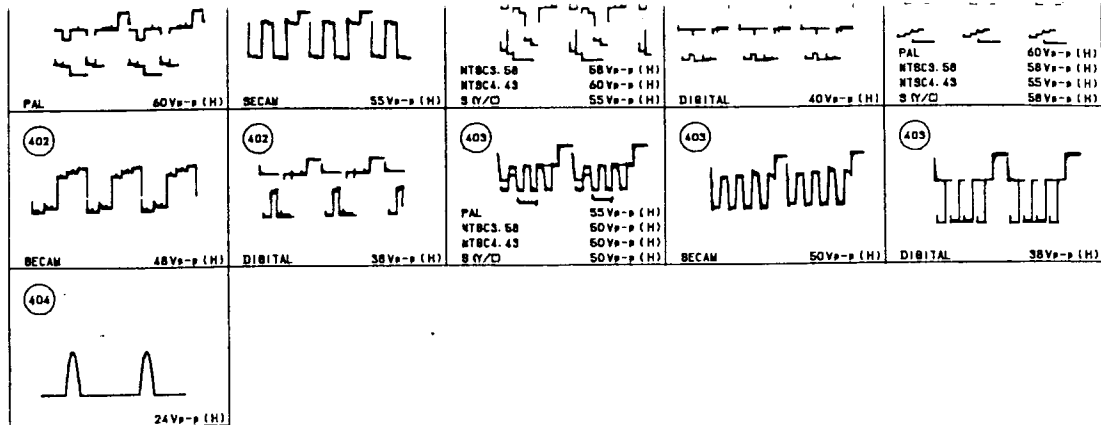
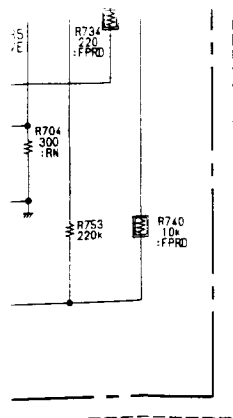
V BOARD WAVEFORM



FE BOARD IC601 μ PC13







F_E (POWER)

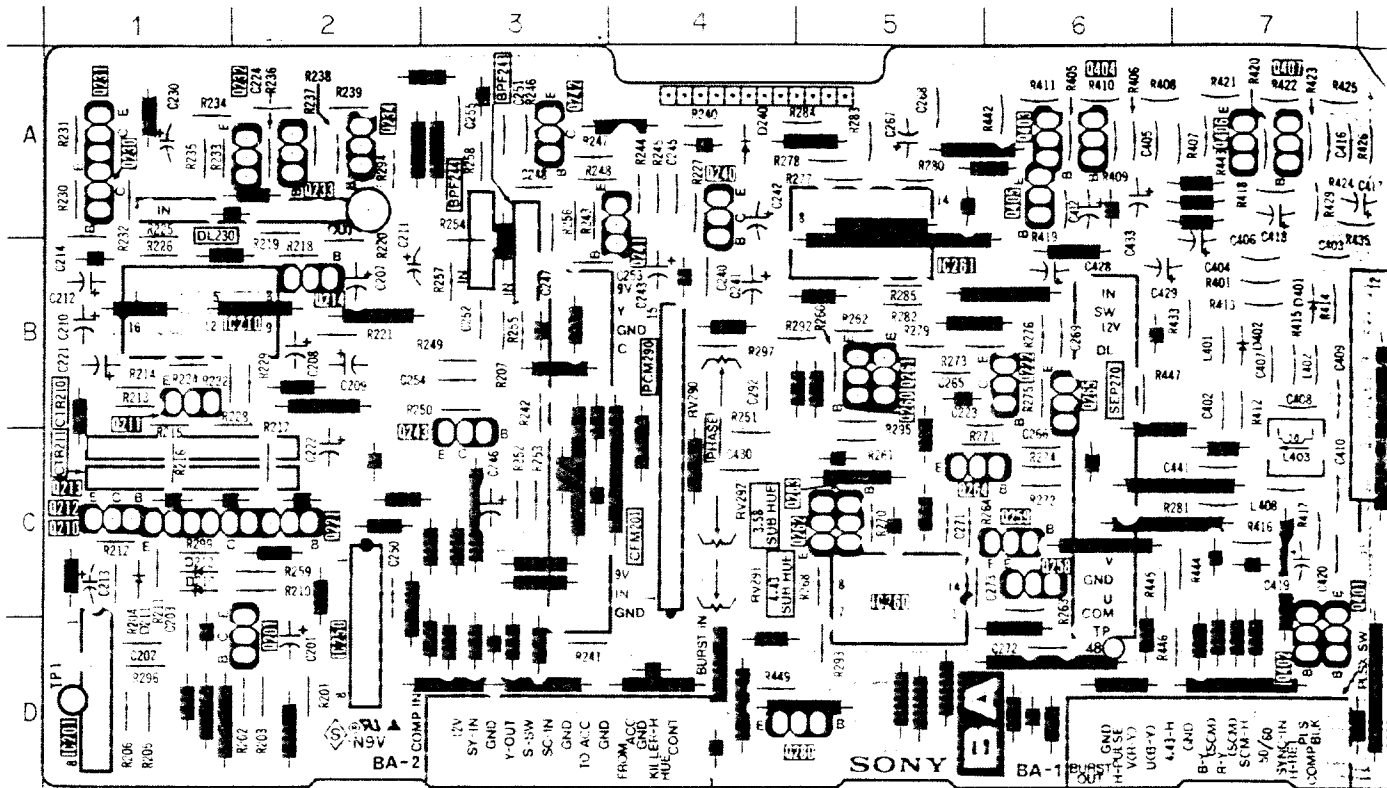
BA

[CHROMA FOR 4 SYSTEM]

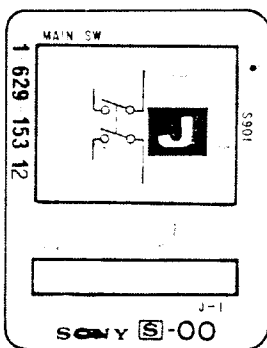
J

[POWER SW]

— BA Board —

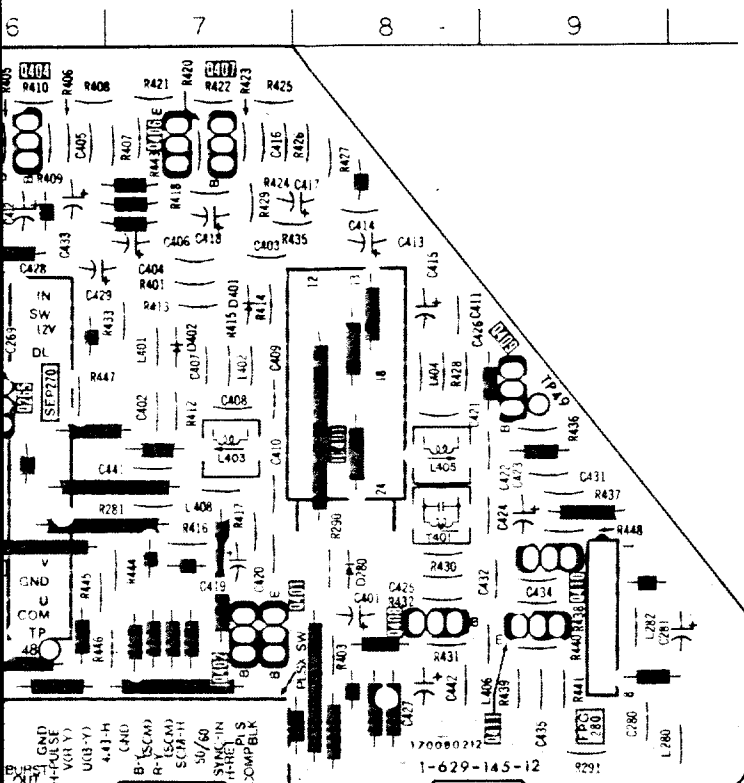


— J Board —



J

[POWER SW]

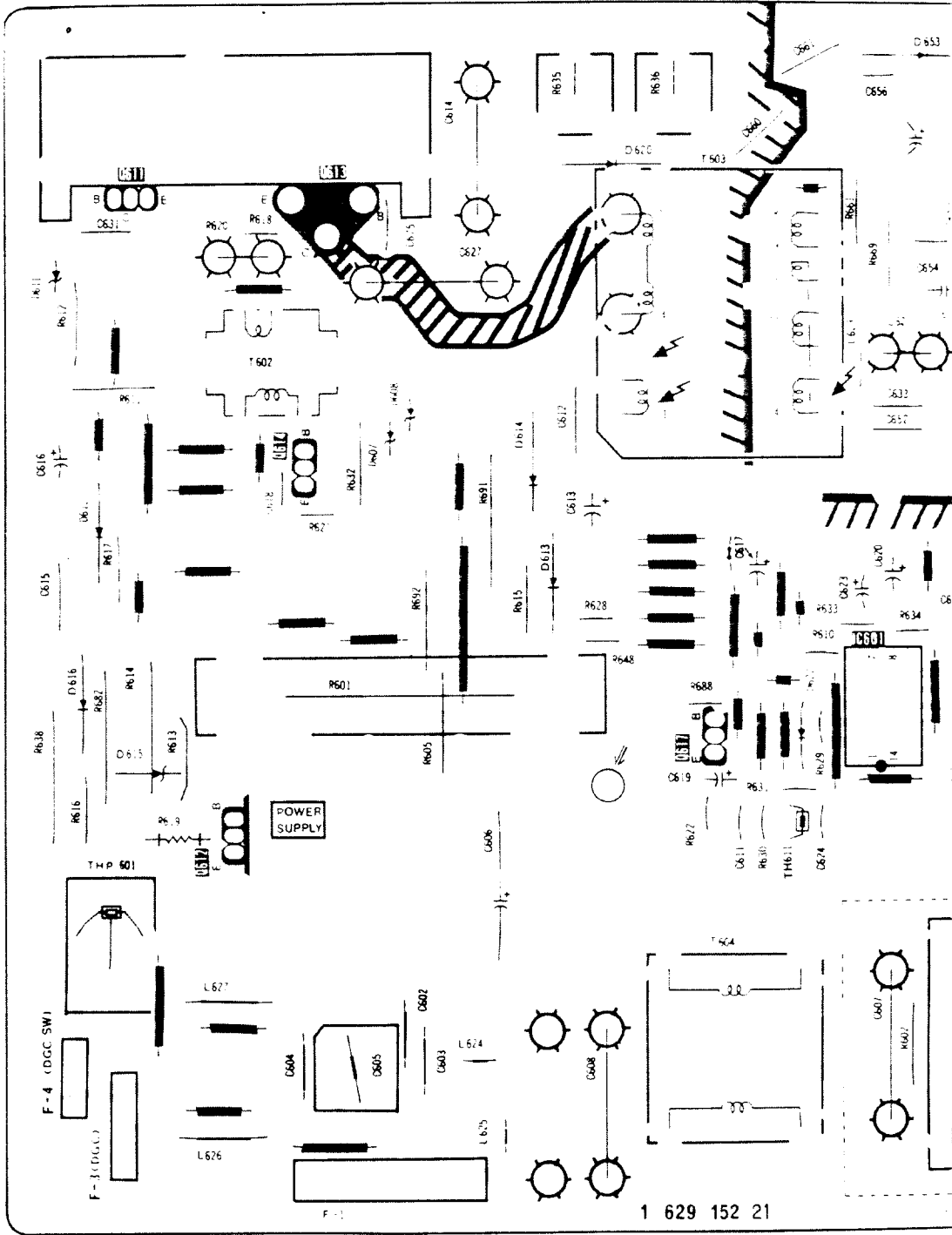


BA Board

IC		DIODE	
IC201	D-1	Q241	A-4
IC210	B-1	Q242	A-3
IC250	D-2	Q243	C-3
IC260	C-5	Q258	C-6
IC261	B-5	Q259	C-6
IC401	B-8	Q260	B-5
TRANSISTOR		Q261	B-5
		Q262	C-5
Q201	D-2	Q263	C-5
Q210	C-1	Q264	C-5
Q211	B-1	Q265	B-6
Q212	C-1	Q280	D-5
Q213	C-1	Q401	D-7
Q214	B-2	Q402	D-7
Q221	C-2	Q403	A-6
Q222	B-6	Q404	A-6
Q230	A-1	Q405	A-6
Q231	A-1	Q406	A-7
Q232	A-2	Q407	A-7
Q233	A-2	Q408	D-8
Q234	A-2	Q409	B-9
		Q410	C-9
		Q411	D-9
		VARIABLE RESISTOR	
		RV290	B-4
		RV291	C-4
		RV292	C-4

- FE Board -

CODE
C-1
C-1
C-1
A-4
C-8
B-7
B-7
TABLE
ISTOR
B-4
C-4
C-4

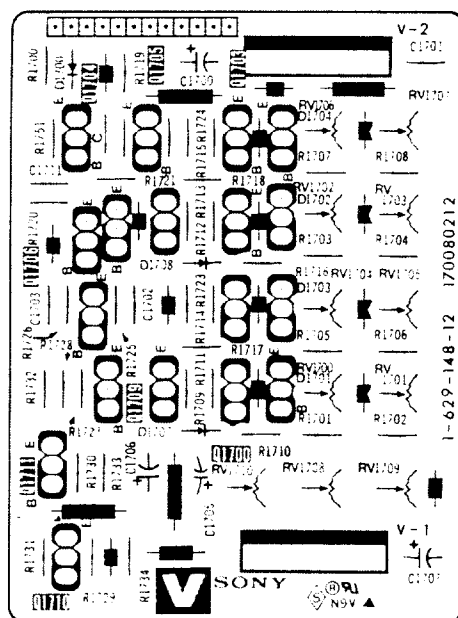
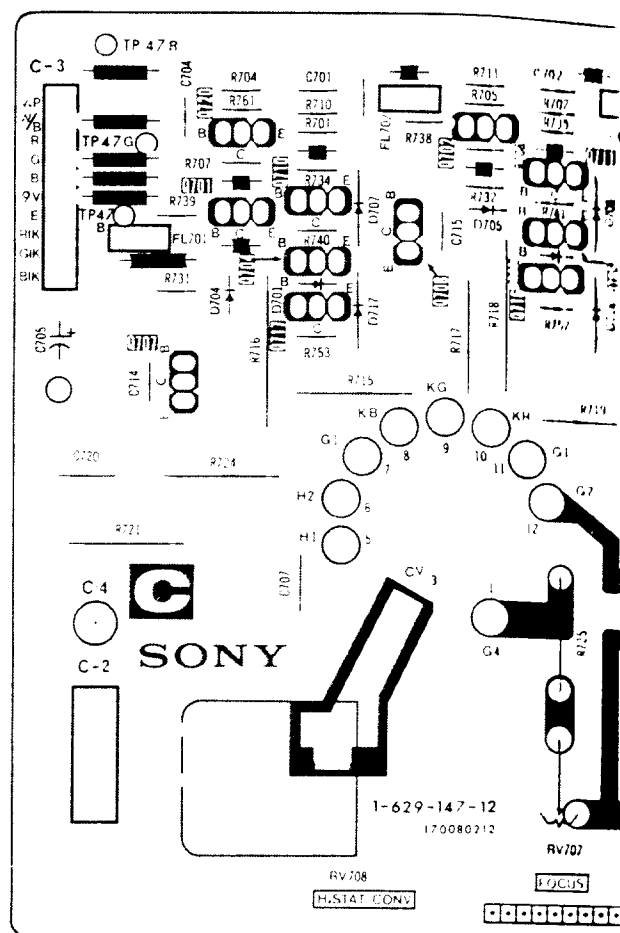


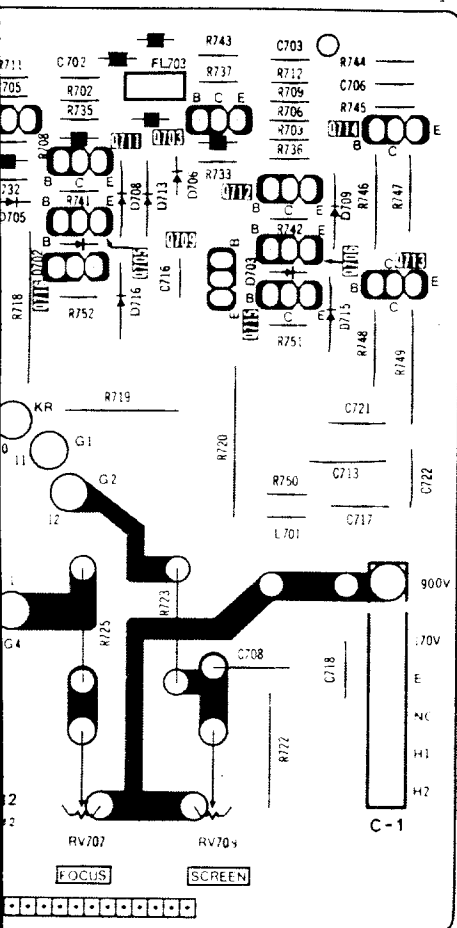
[POWER]

[R·G·B OUT]

[WHITE BALANCE]

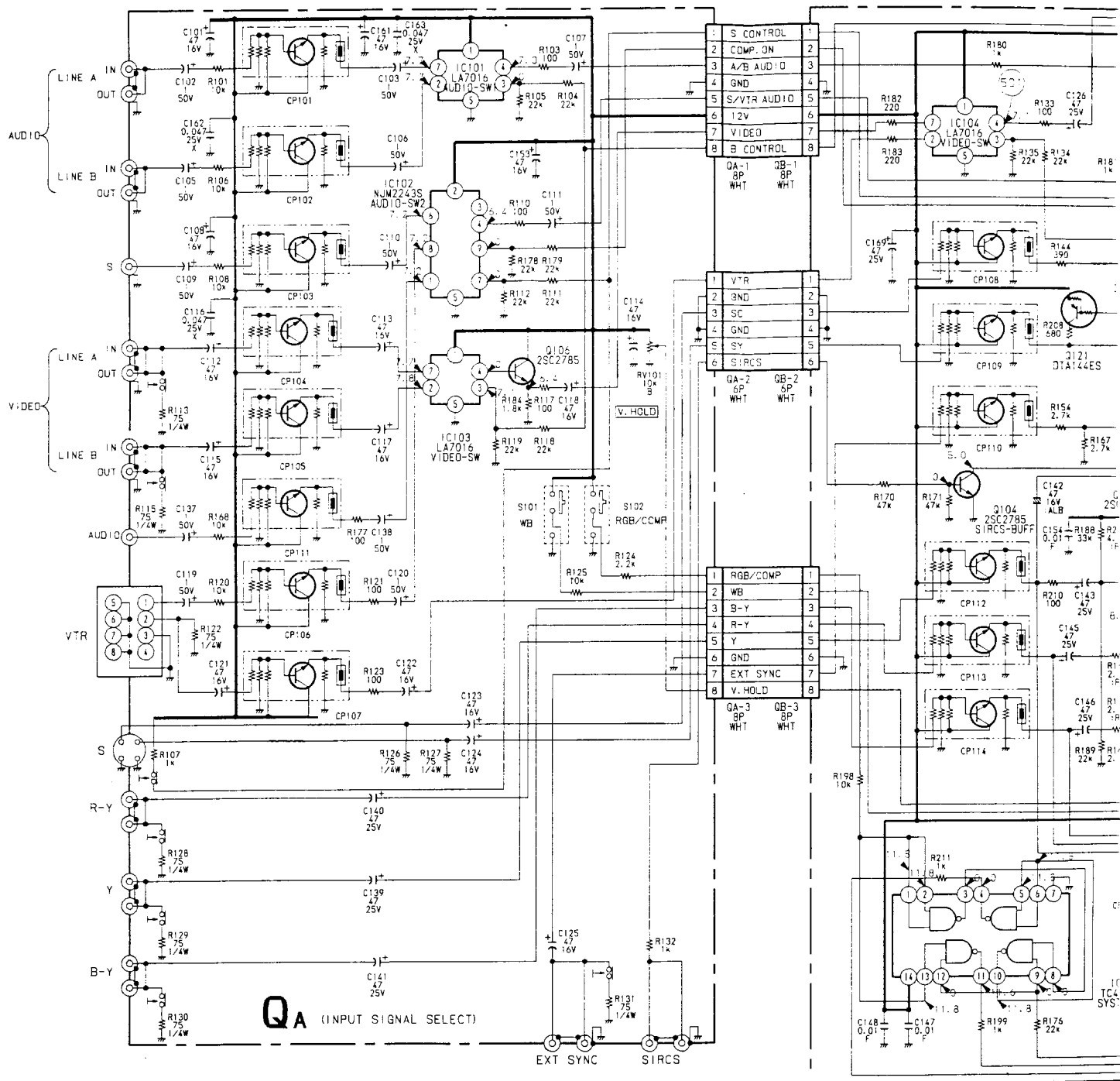
— V Board —





For Service Manuals
MAURITRON SERVICES
 8 Cherry Tree Road, Chinnor
 Oxfordshire, OX9 4QY.
 Tel (01844) 351694
 Fax (01844) 352554
 email:- mauritron@dial.pipex.com

(QA, QB Board: PVM-1444QM)

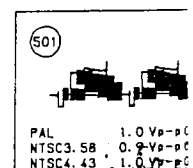


QB BOARD

IC-NO	PIN-NO	PAL	SECAM	NTSC 3.58	NTSC 4.43	S-VIDEO
IC104	(1)	7.8	7.8	7.8	7.8	7.7
	(3)	0.7	0.7	0.7	0.7	5.6
	(7)	7.7	7.7	7.7	7.7	7.8
IC105	(1)	7.8	7.8	7.8	7.8	7.7
	(3)	0.5	0.5	0.5	0.5	5.3
	(7)	7.7	7.7	7.7	7.7	7.8
IC106	(7)	0.4	0.4	0.4	0.4	3.3

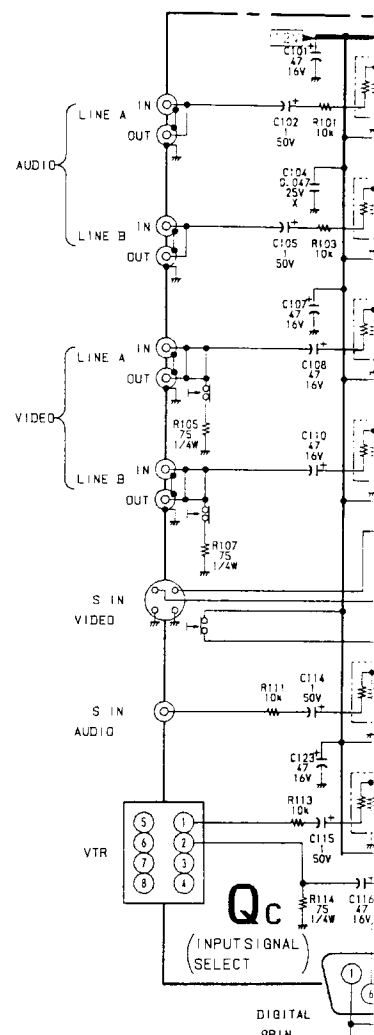
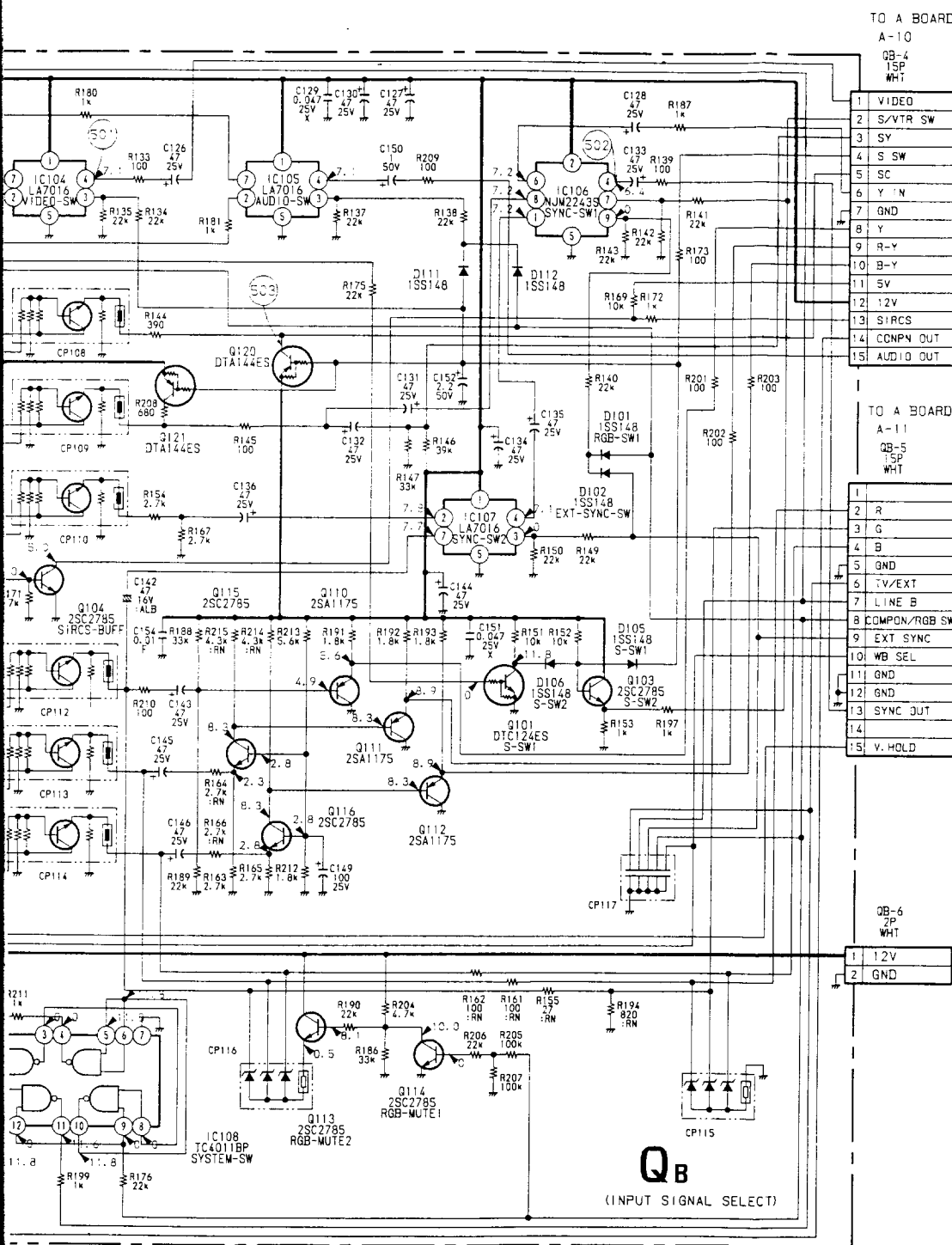
Q NO.	PAL	SECAM	NTSC 3.58	NTSC 4.43	S-VIDEO
Q103	B	1.9	1.9	1.9	1.3
	C	1.3	1.3	1.3	10.5
	E	1.3	1.3	1.3	11.3
Q120	B	1.3	1.3	1.3	11.3
	C	1.3	1.3	1.3	11.3
	E	1.3	1.3	1.3	11.3

QB BOARD W/

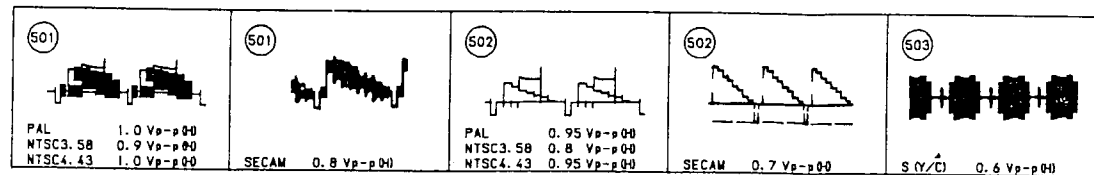


8	9	10	11	12	13	14	15
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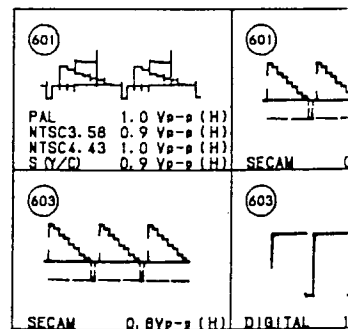
(QC, QD, QE Board: PVM-1442QM)



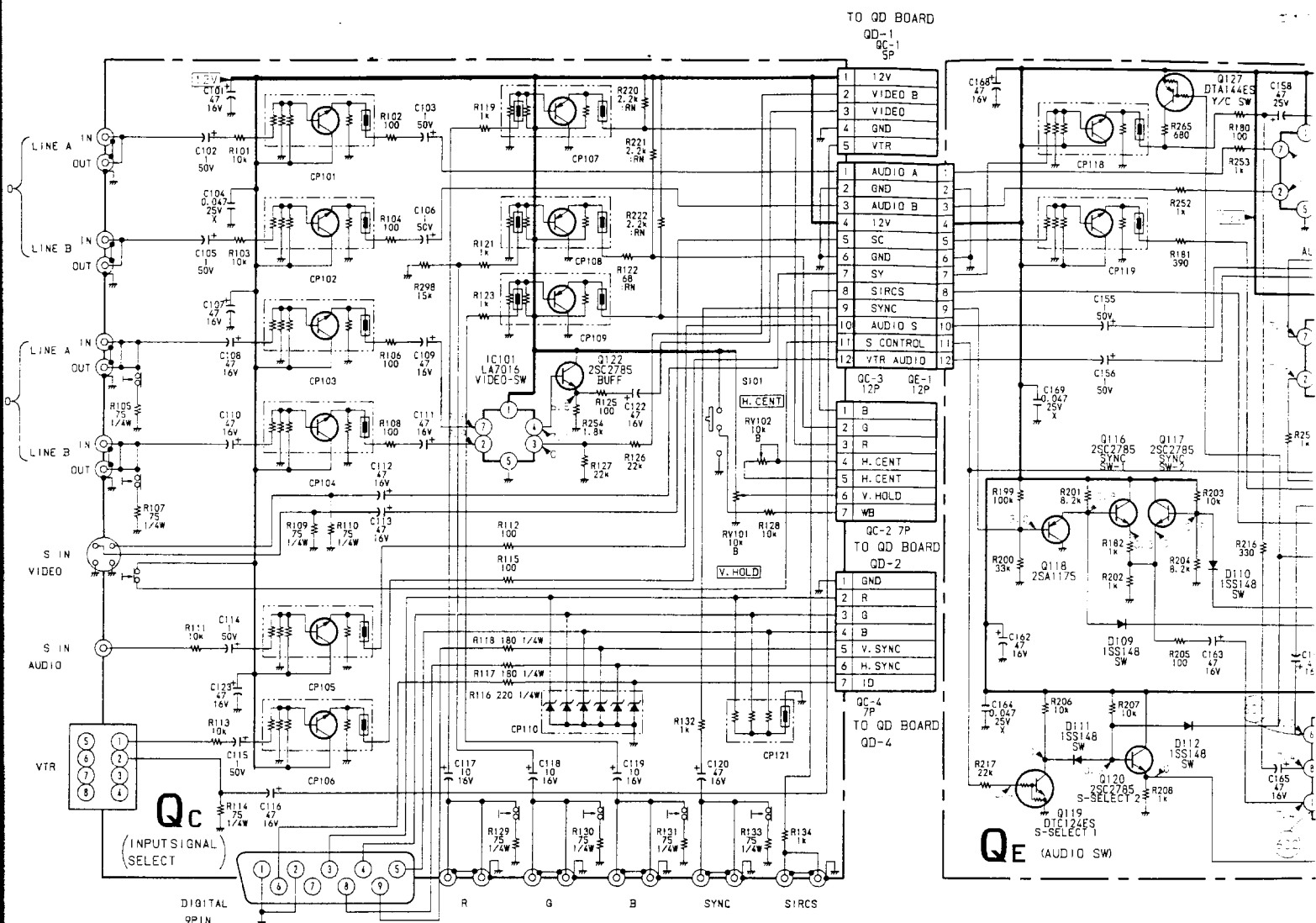
QB BOARD WAVEFORM



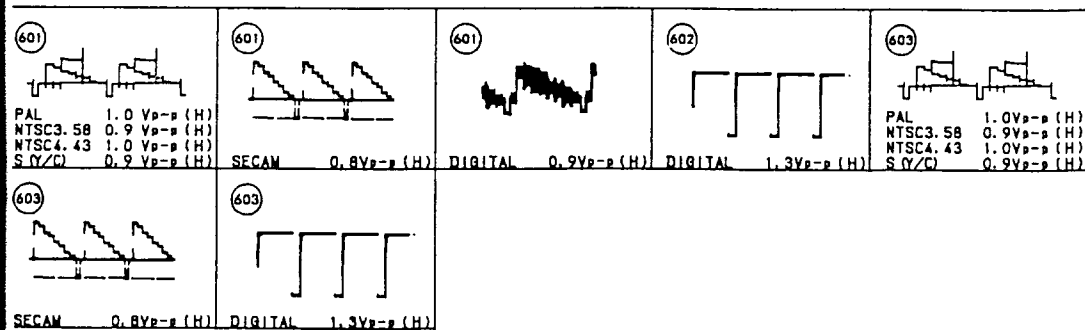
QE BOARD WAVEFORM



QD, QE Board: PVM-1442QM)



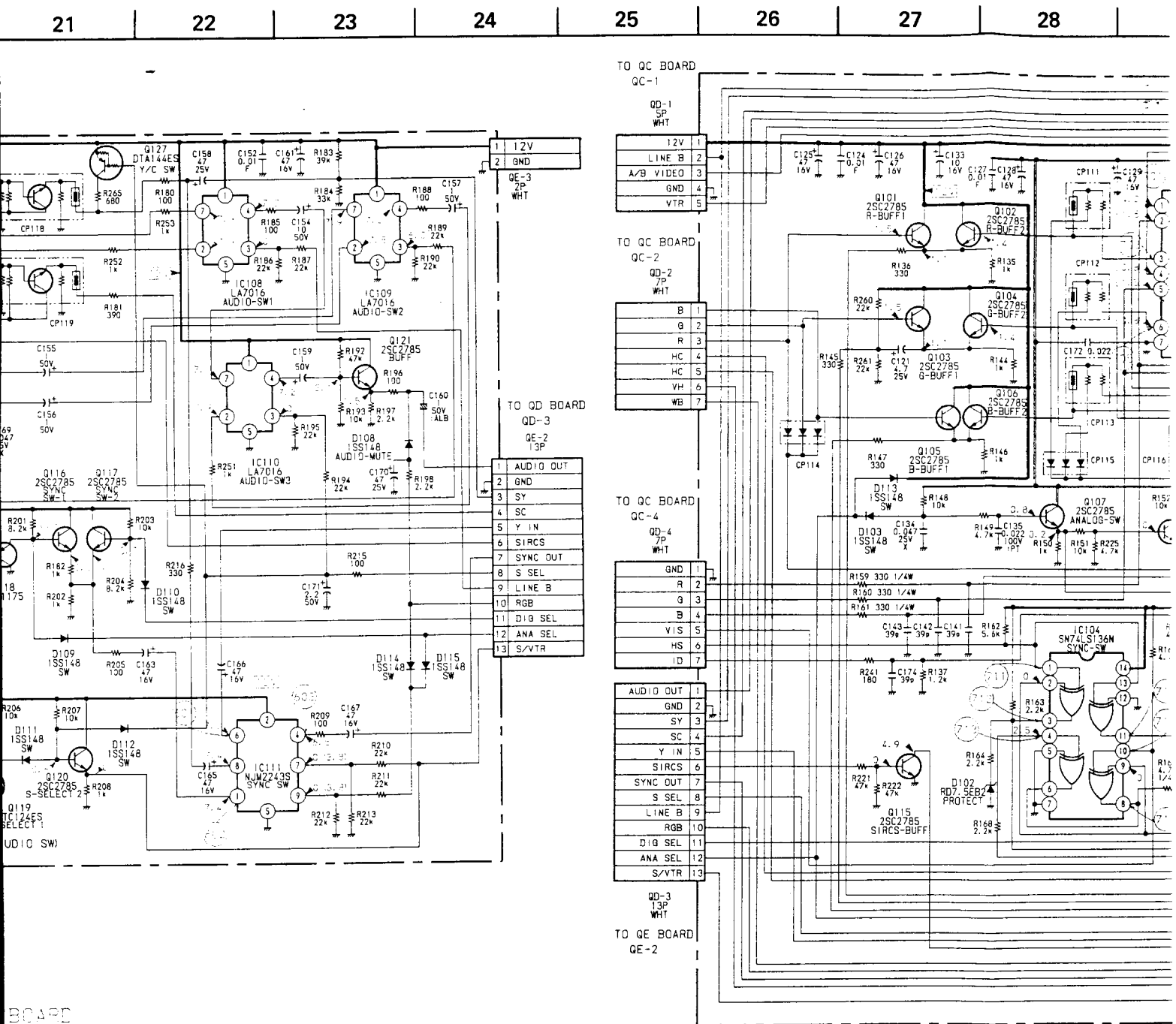
QE BOARD WAVEFORM



QD BOARD

IC NO.	PIN NO.	PAL	SECAM	NTSC
IC104	(1)	5.0	5.0	5.0
	(2)	4.5	4.5	4.5
	(3)	0	0	0
	(4)	0.8	0.8	0.8
IC105	(1)	4.5	4.5	4.5
	(2)	0.4	0.5	0.5
	(3)	0	0	0
	(4)	0.5	0.5	0.5
IC106	(1)	0	0	0
	(2)	0	0	0
	(3)	0	0	0
	(4)	0.2	0.3	0.5
IC107	(1)	4.5	4.5	4.5
	(2)	0	0	0
	(3)	0	0	0
	(4)	0	0	0

IC NO.	PAL	SECAM	NTSC
IC103	1.5	1.5	1.5
IC104	0.2	0.2	0.2
IC105	0.2	0.2	0.2
IC106	0.2	0.2	0.2
IC107	0.2	0.2	0.2

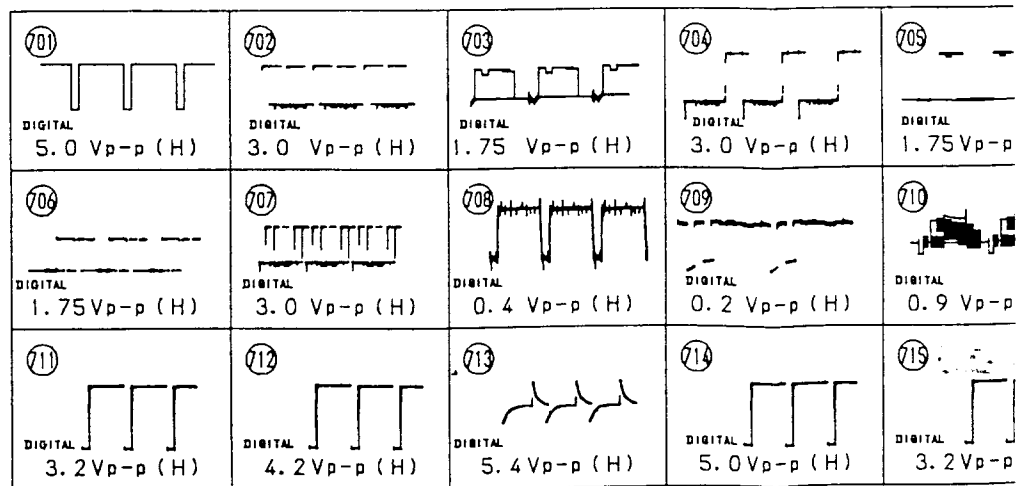


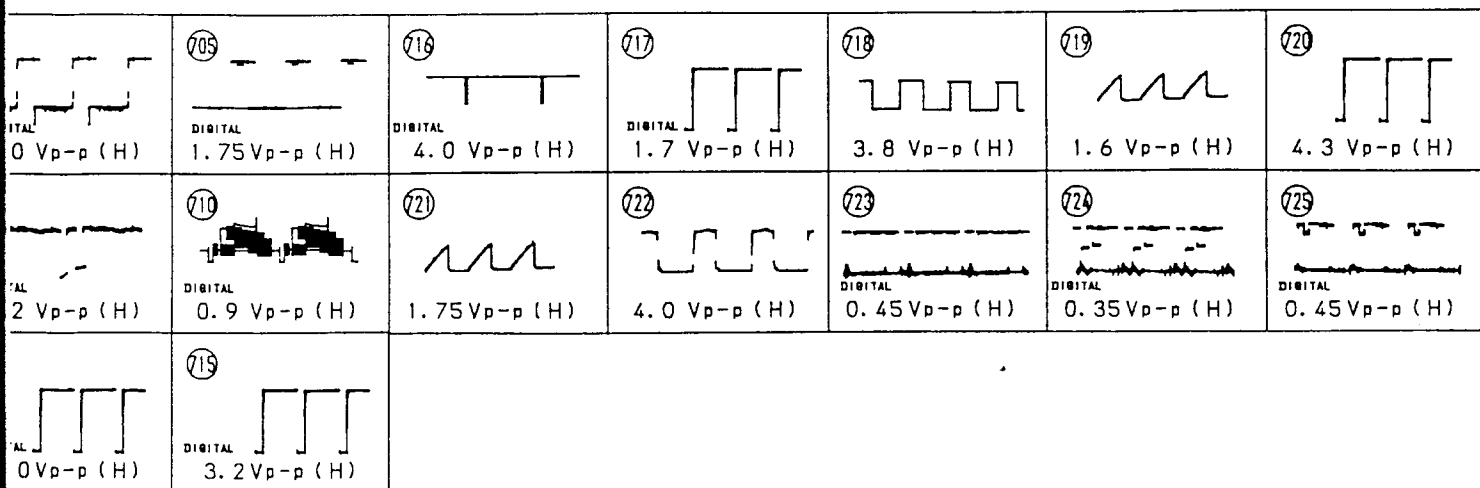
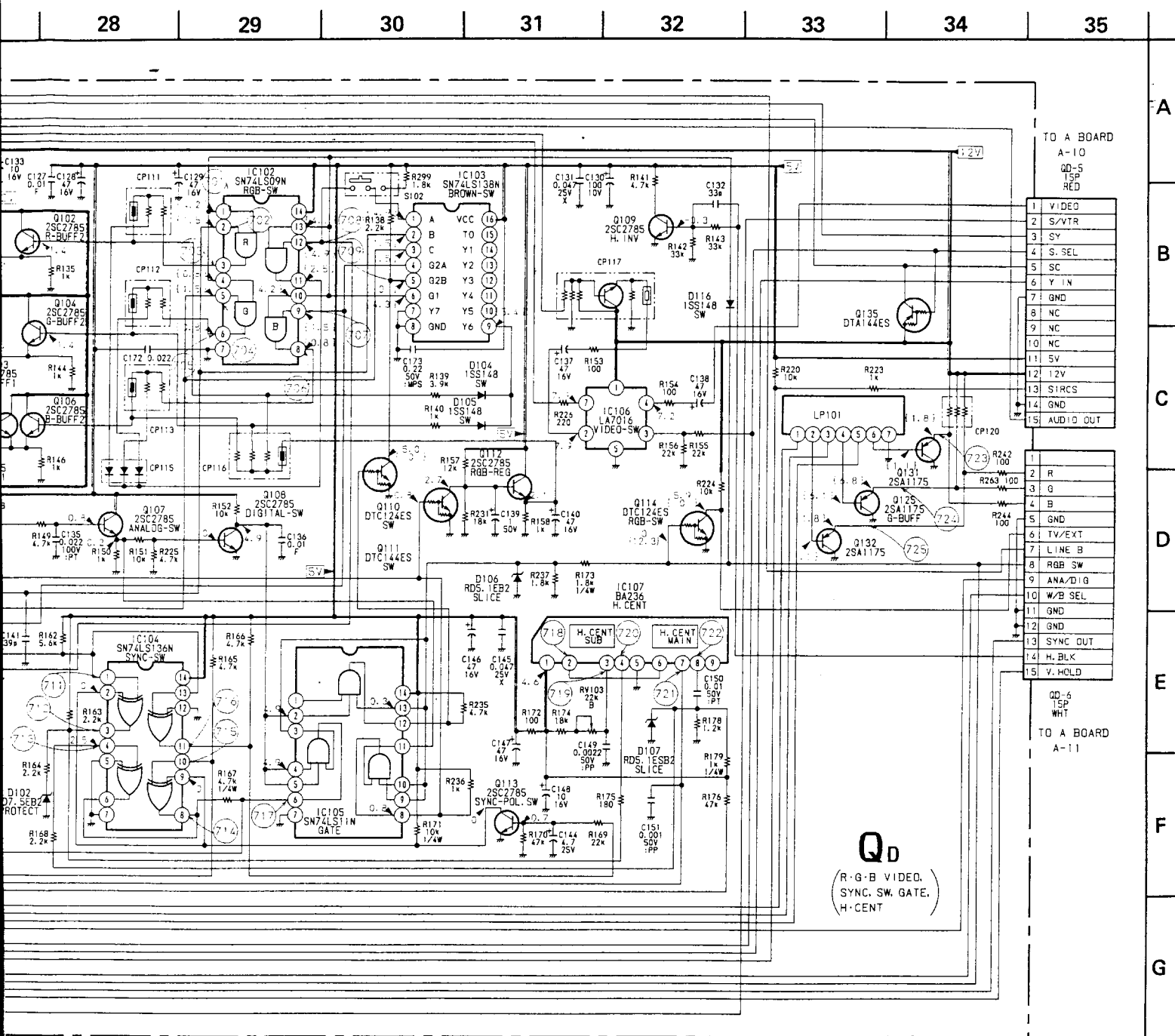
BOARD

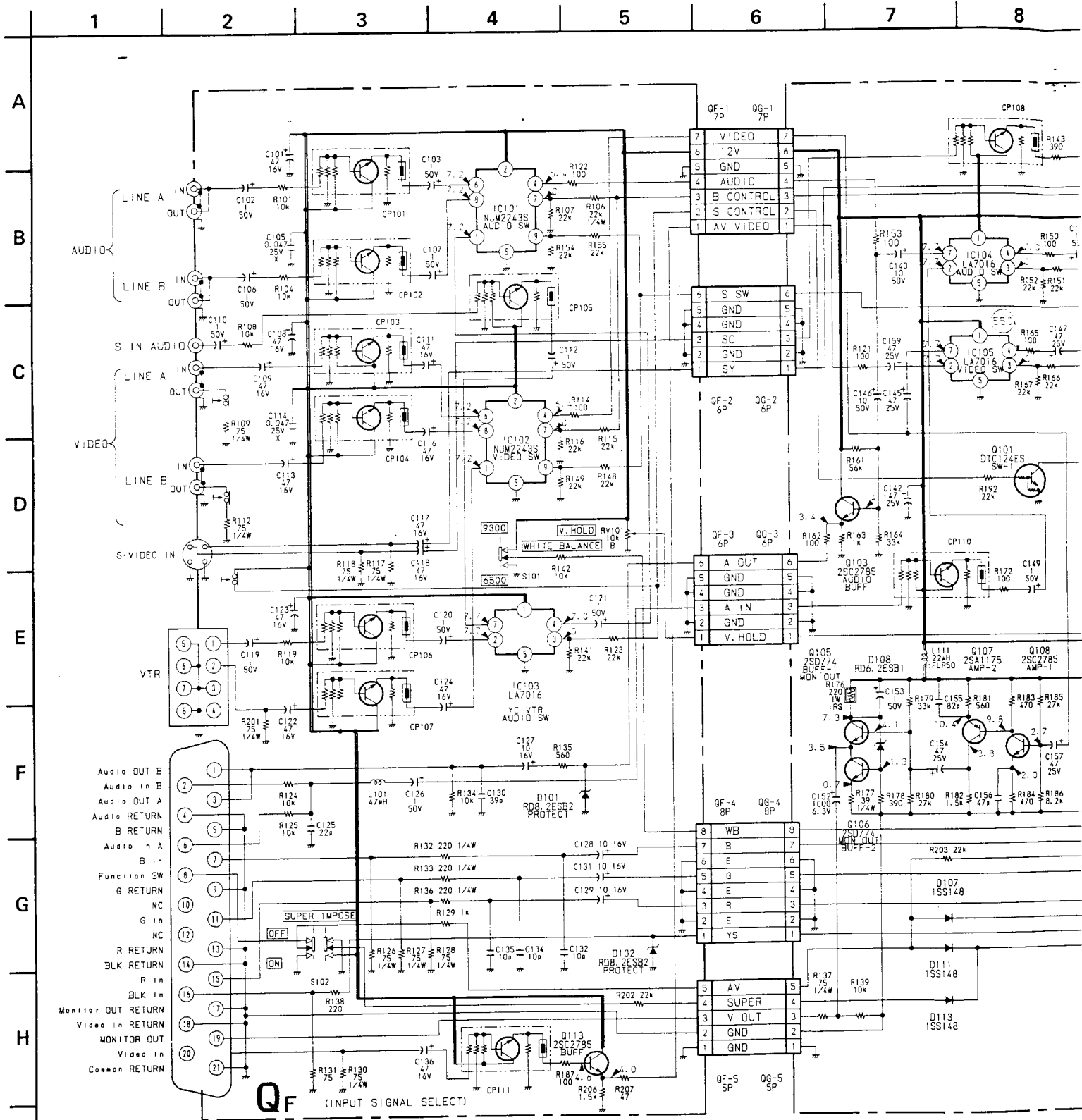
	PAL	SECAM	NTSC	NTSC	S-V DEC
(1)	5.0	5.0	5.0	3.4	3.9
(2)	4.5	4.5	4.5	4.5	4.2
(3)	0	0	0	0	4.5
(4)	0.8	0.8	0.8	3.2	3.3
(5)	4.1	4.1	4.1	4.1	3.9
(6)	5.0	5.0	5.0	3.5	3.5
(7)	3.4	3.4	0.5	0.5	4.8
(8)	0	0	0	0	5.0
(9)	0.5	0.5	0.5	0.5	4.8
(10)	0	0	0	0	4.3
(11)	0	0	0	5.8	0
(12)	0	0	0	0	1.8
(13)	3.2	0.3	0.5	0.3	0.7
(14)	4.5	4.5	4.5	4.5	4.2
(15)	0	0	0	0	0.9
(16)	0	0	0	0	1.8

2 NO.	PAL	SECAM	NTSC	NTSC	S-VIDEO	DIGITAL
B	1.5	1.5	1.5	1.5	1.3	1.3
C	3.9	3.9	3.9	3.9	3.9	3.9
D	1.4	1.4	1.4	1.4	1.4	1.4
E	3.9	3.9	3.9	3.9	3.9	3.9

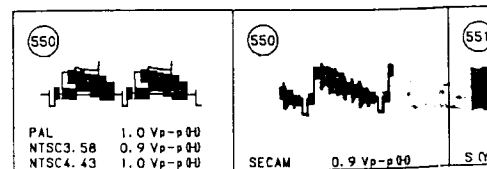
QD BOARD WAVEFORM



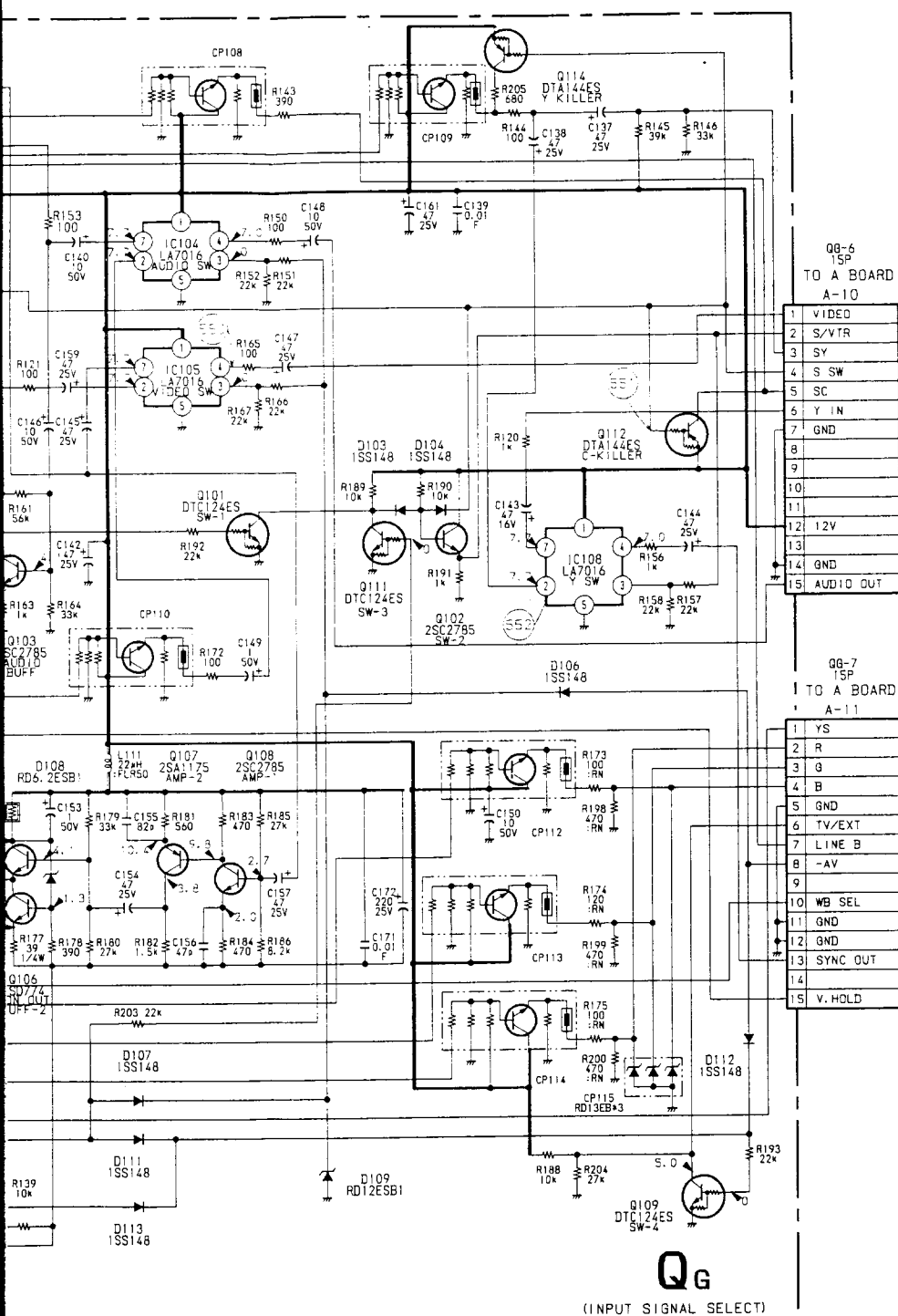




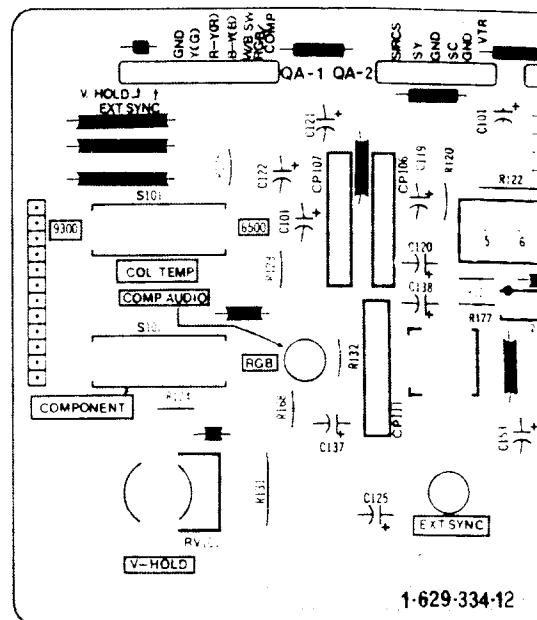
QG BOARD WAVEFORM



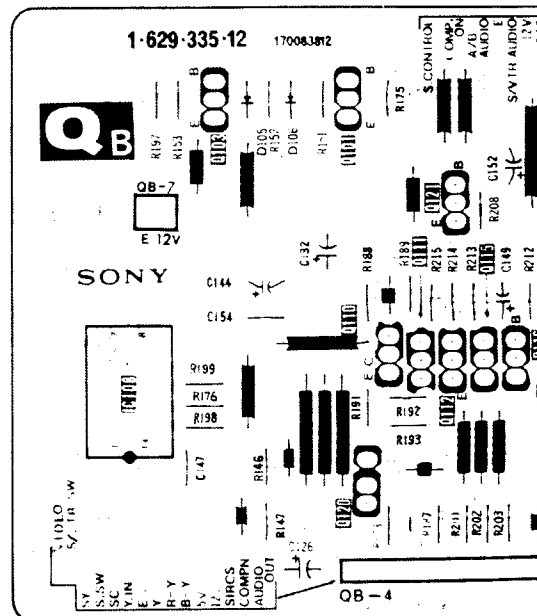
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 email:- mauritron@dial.pipex.com



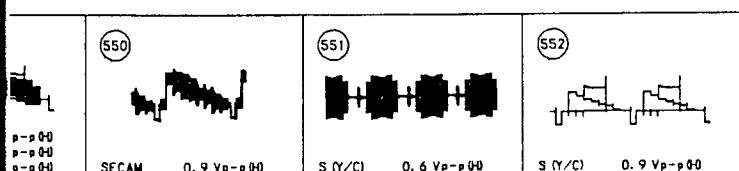
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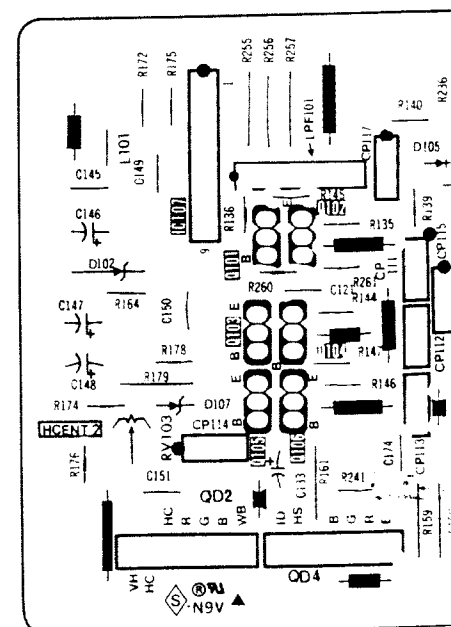
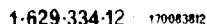


— QB Board — (PVM-1444QM)



WAVEFORM





QE

[AUDIO SW]

QC

[INPUT SIGNAL SELECT]

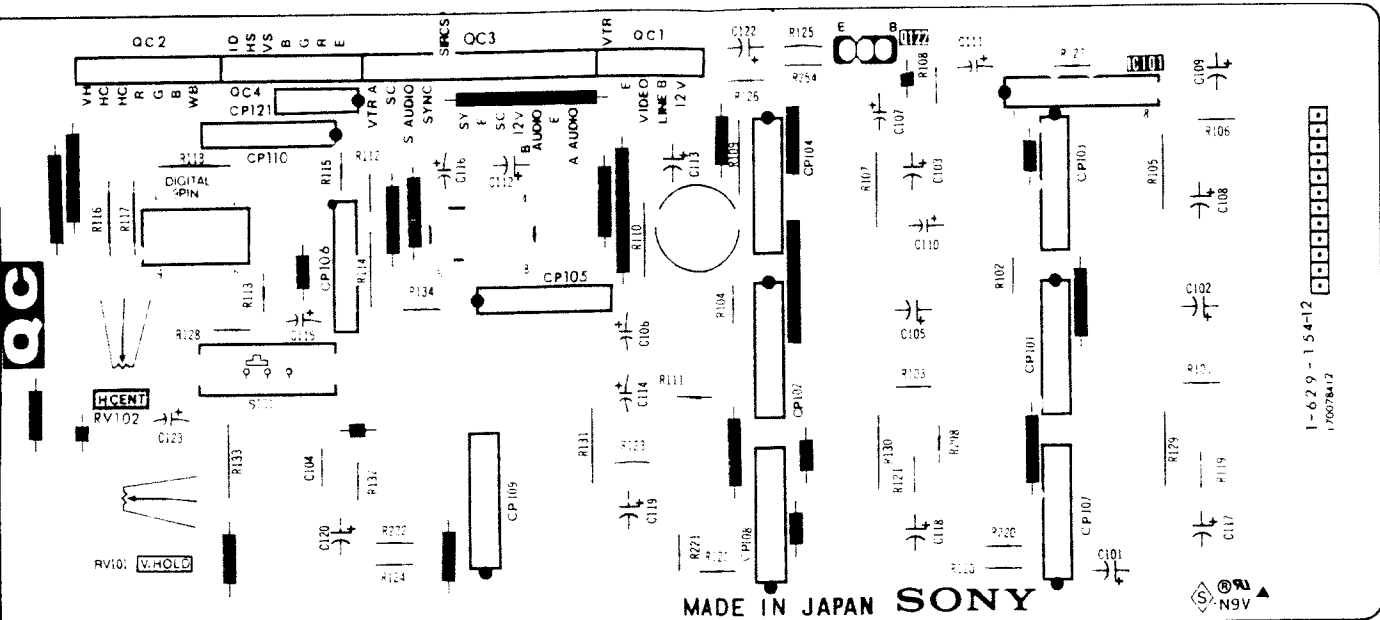
QF

[INPUT SIGNAL SELECT]

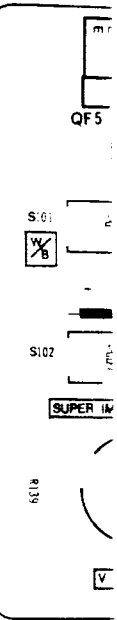
QG

[INPUT SIGNAL SELECT]

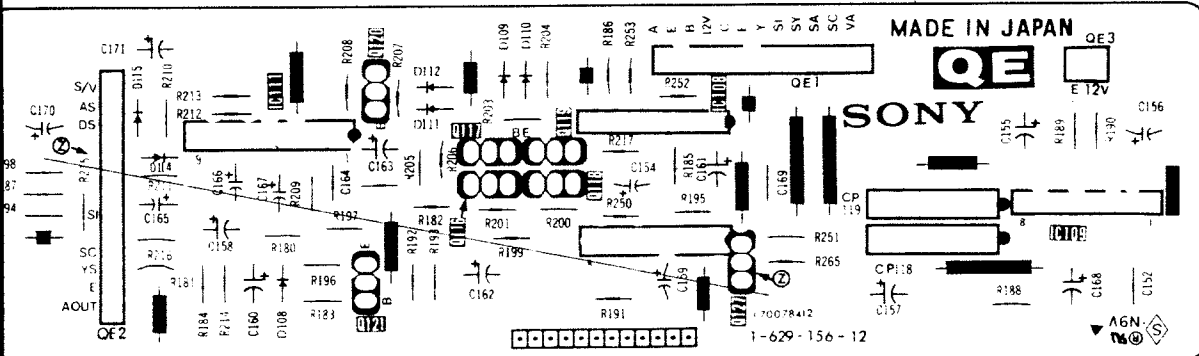
- QC Board - (PVM-1442QM)



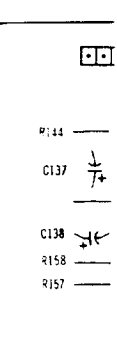
- QF Board



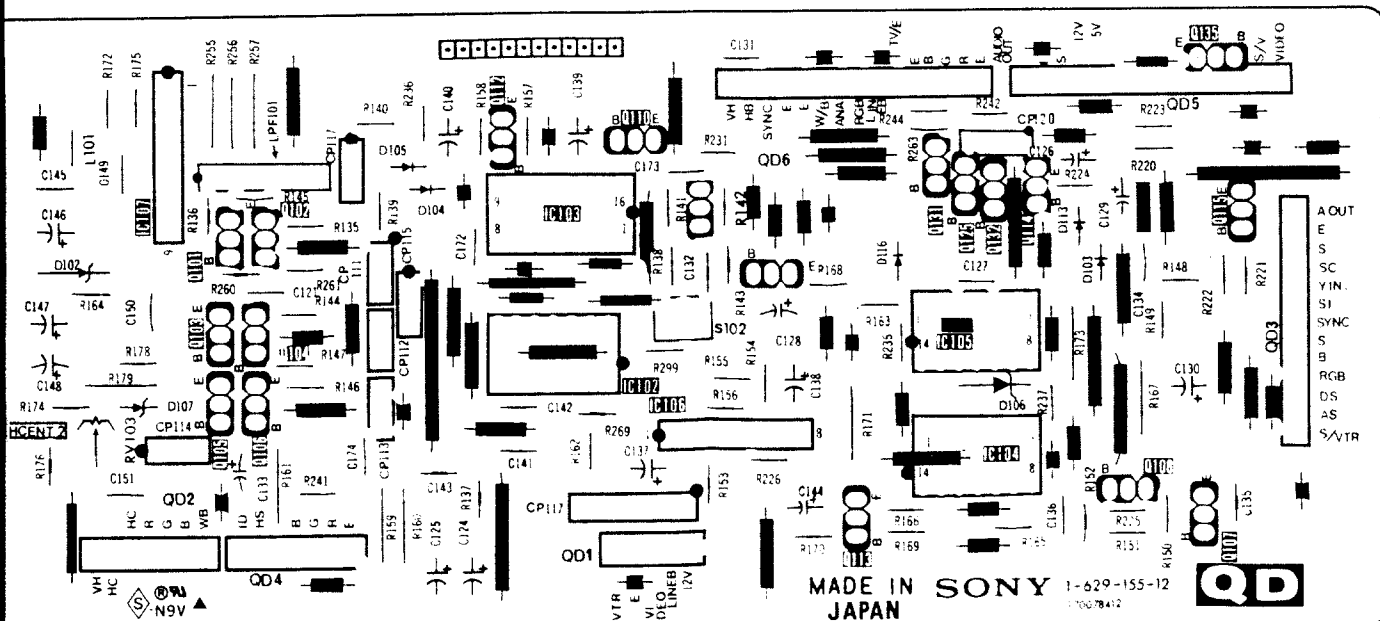
QE Board - (PVM-1442QM)



- QG Board

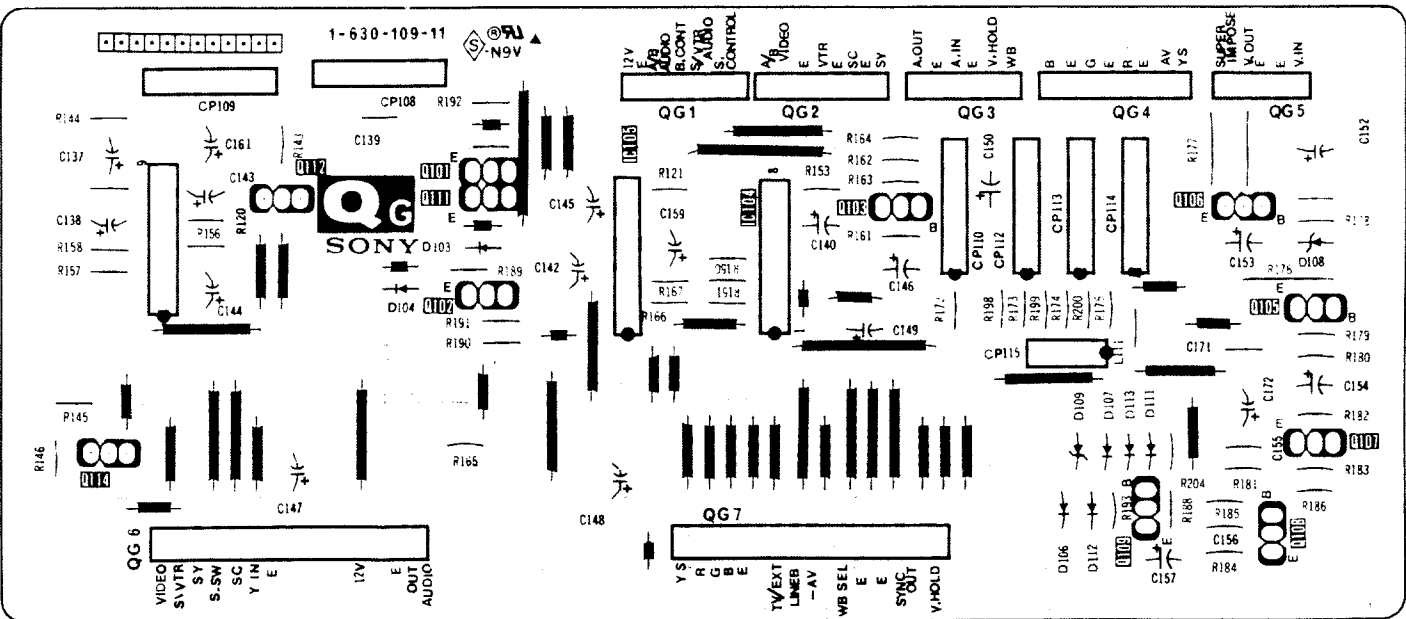


QD Board - (PVM-1442QM)

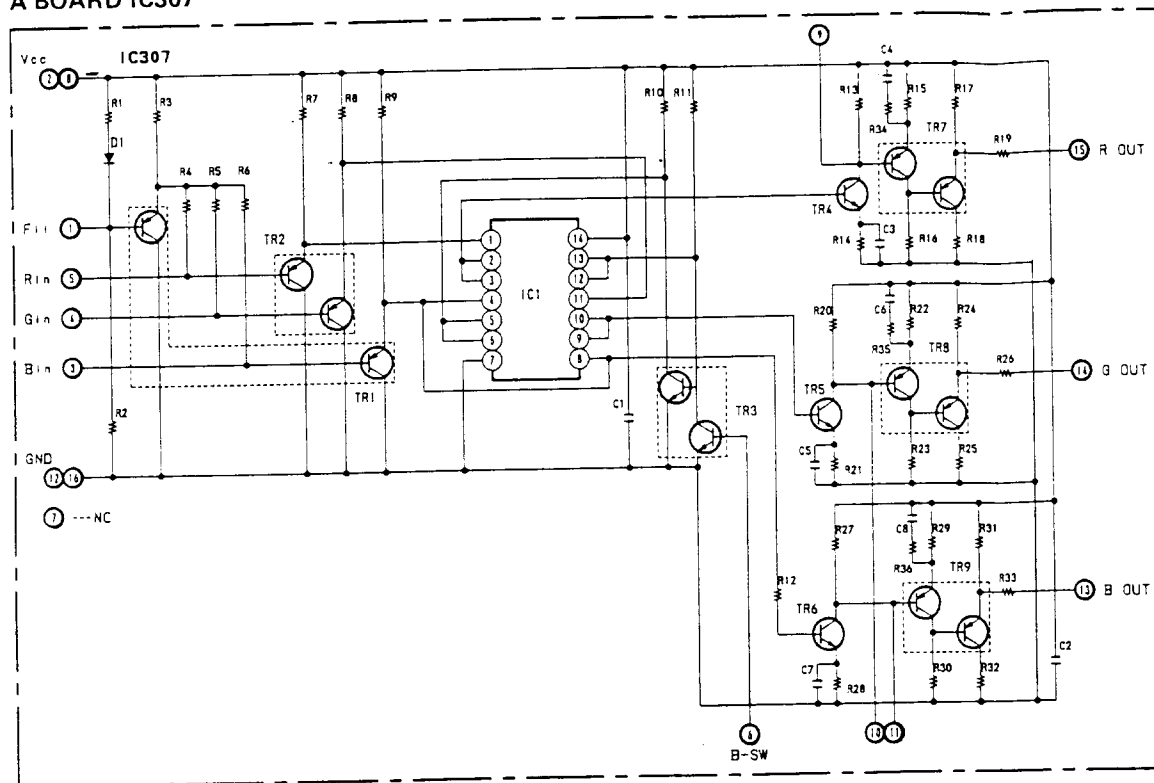


JT
 C
 TR

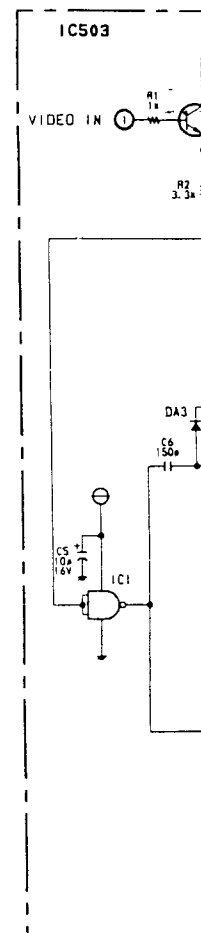
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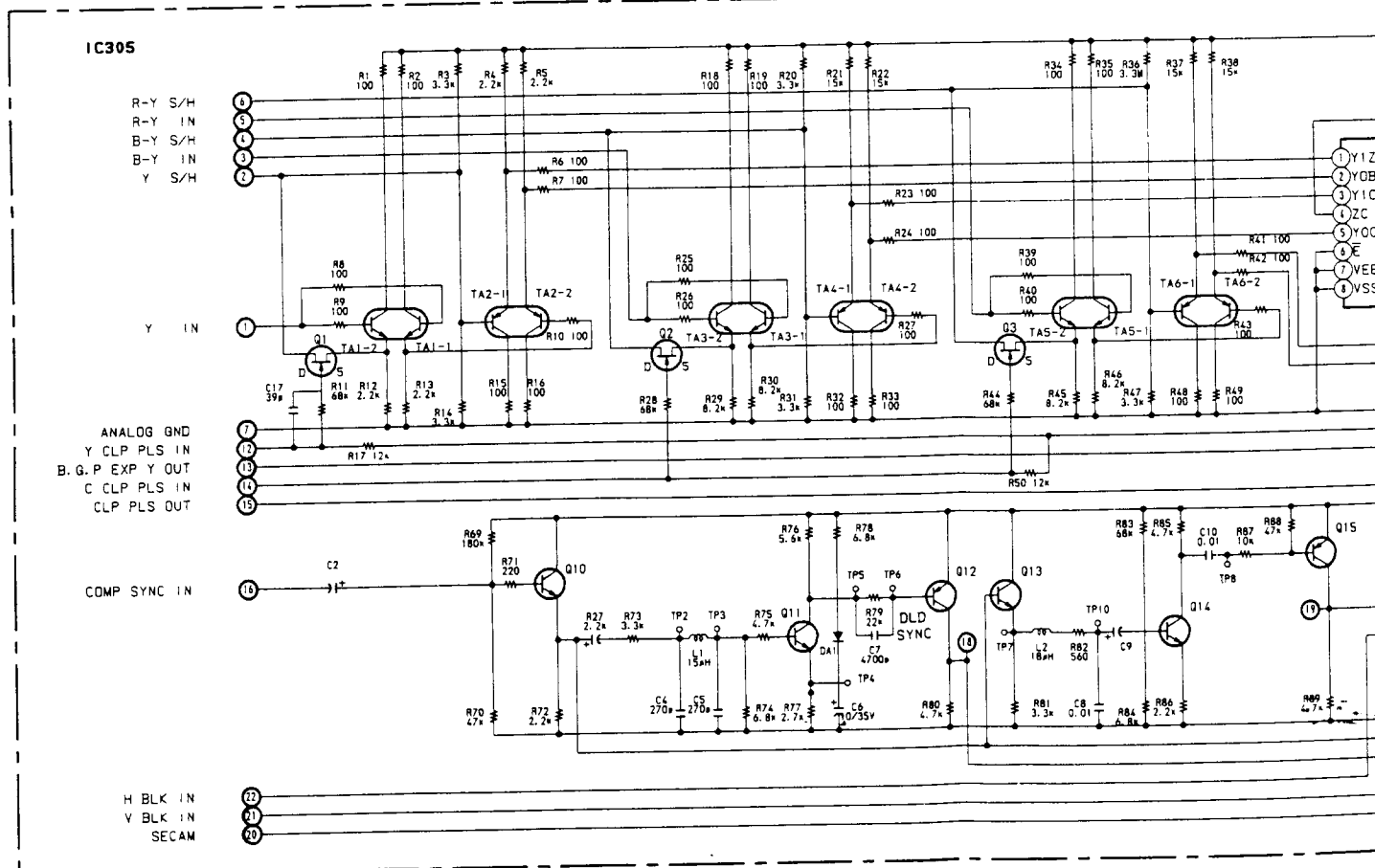
A BOARD IC307



A BOARD IC503



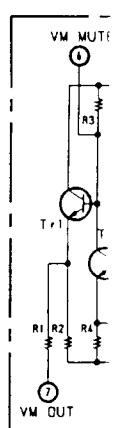
A BOARD IC 305



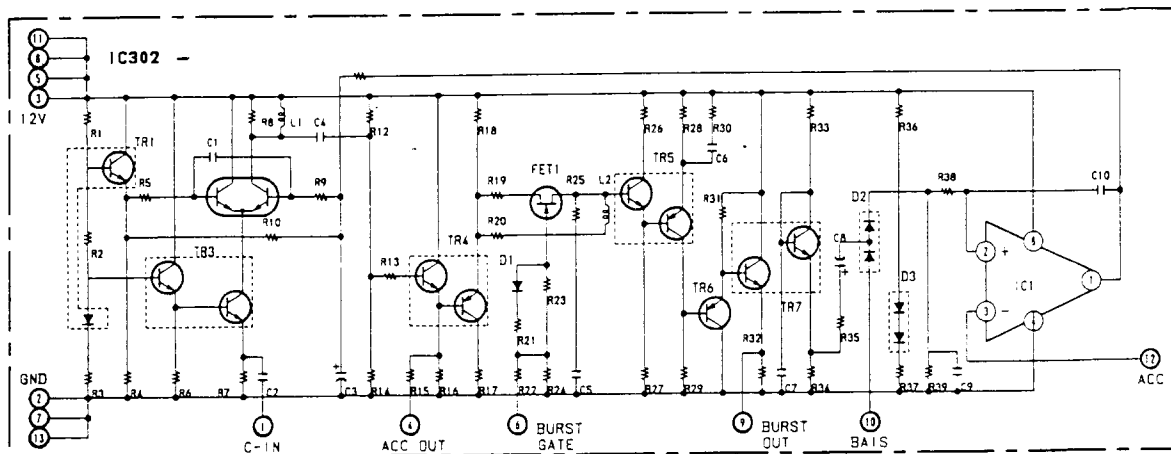
A BOARD



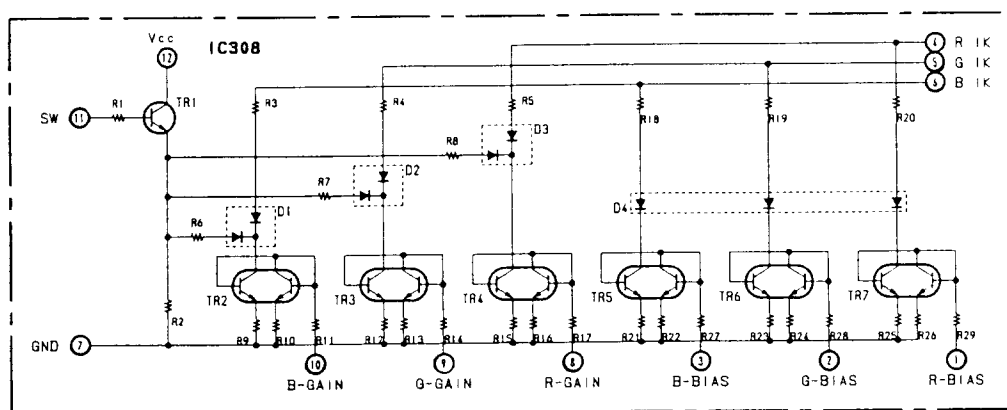
A BOARI



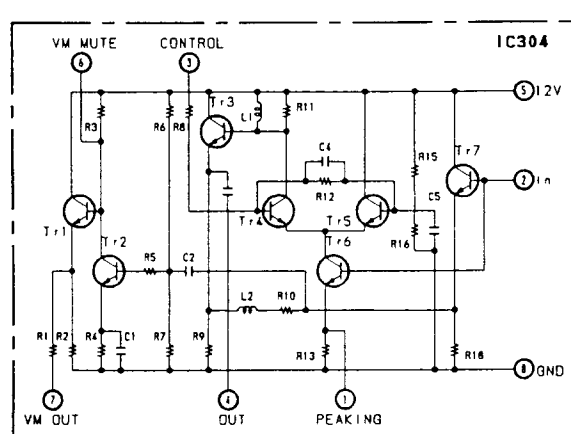
A BOARD IC302



A BOARD IC308



A BOARD IC304



AN5



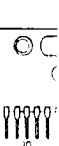
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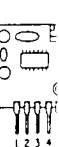
BA2



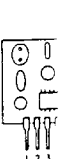
BX-



BX-



BX-



CX-



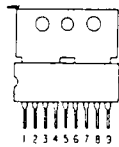
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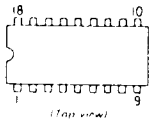
CX-
IR9
LA7
UPC
UPC

6-6. SEMICONDUCTORS

AN5265



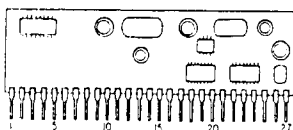
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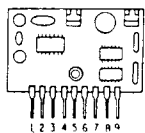
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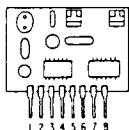
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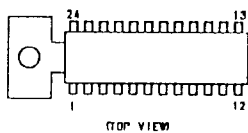
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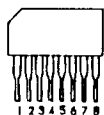
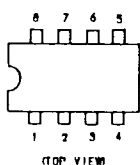
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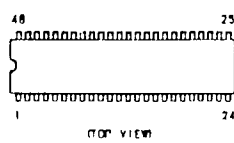
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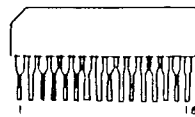
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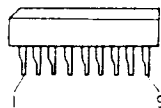
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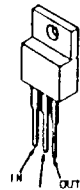
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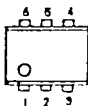
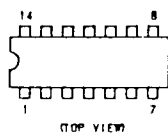
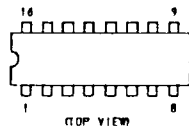
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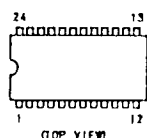
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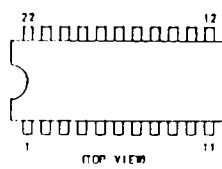
PC111S


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 TC4066BP
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 SN74LS138N
 TC4052BP
 TC4053BP
 TC4538BP


TA7193P

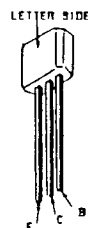
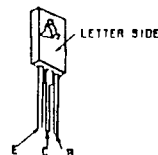


UPC1377C


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 DTA144ES
 DTC124ES-TP
 DIC144ES-TP

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 2SC1890A-ETZ

2SC2551-R


 2SA1175TP-F
 2SA1175TP-HFE
 2SC2785TP-F
 2SC2785TP-HFE

 2SA1220A-P
 2SA1220A-Q
 2SC2611
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 2SC2690A-Q

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 2SD774-T-3


2SD1134-C



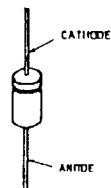
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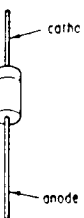
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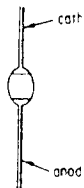
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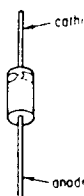
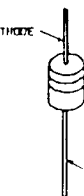
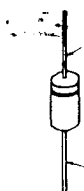
GP08D



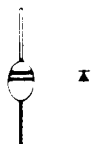
RD4.3ES



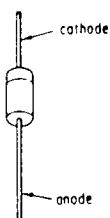
RD5.6EB7


 RD5.1ES-
 RD5.6ES-
 RD6.2ES-
 RD6.8ES-
 RD8.2ES-
 RD10ES-T
 RD10ES-T
 RD13ES-T
 RD15ES-T
 RD16ES-T
 RD39ES-T

 RD-6.8EB-
 RD16EB3T
 RD24EB27
 10E2-TA2E


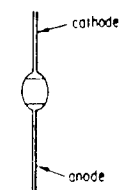
ERC26_15S
V11N



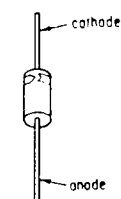
GP08D



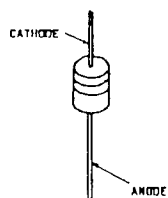
RD4.3ES-T1L2



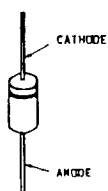
RD5.6EBZ75TN



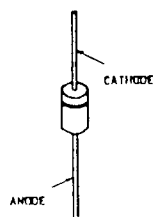
RD5.1ES-2V
RD5.6ES-T1L1
RD6.2ES-T1B2
RD6.8ES-T1B2
RD8.2ES-T1B2
RD10ES-T1B1
RD10ES-T1L3
RD13ES-T1B3
RD15ES-T1B2
RD16ES-T1B3
RD39ES-T1B4



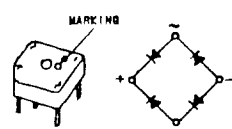
RD-6.8EB-2
RD16EB3TN
RD24EB27TN
10E2-TA2B



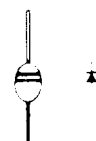
RD110EBTN
RH-1Z
RU2AM
S1B01-06
S1B01-04TP1



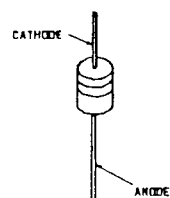
S3WB60Z



V19E



1SS148
1SS148-TP7



SECTION 7

EXPLODED VIEWS

NOTE:

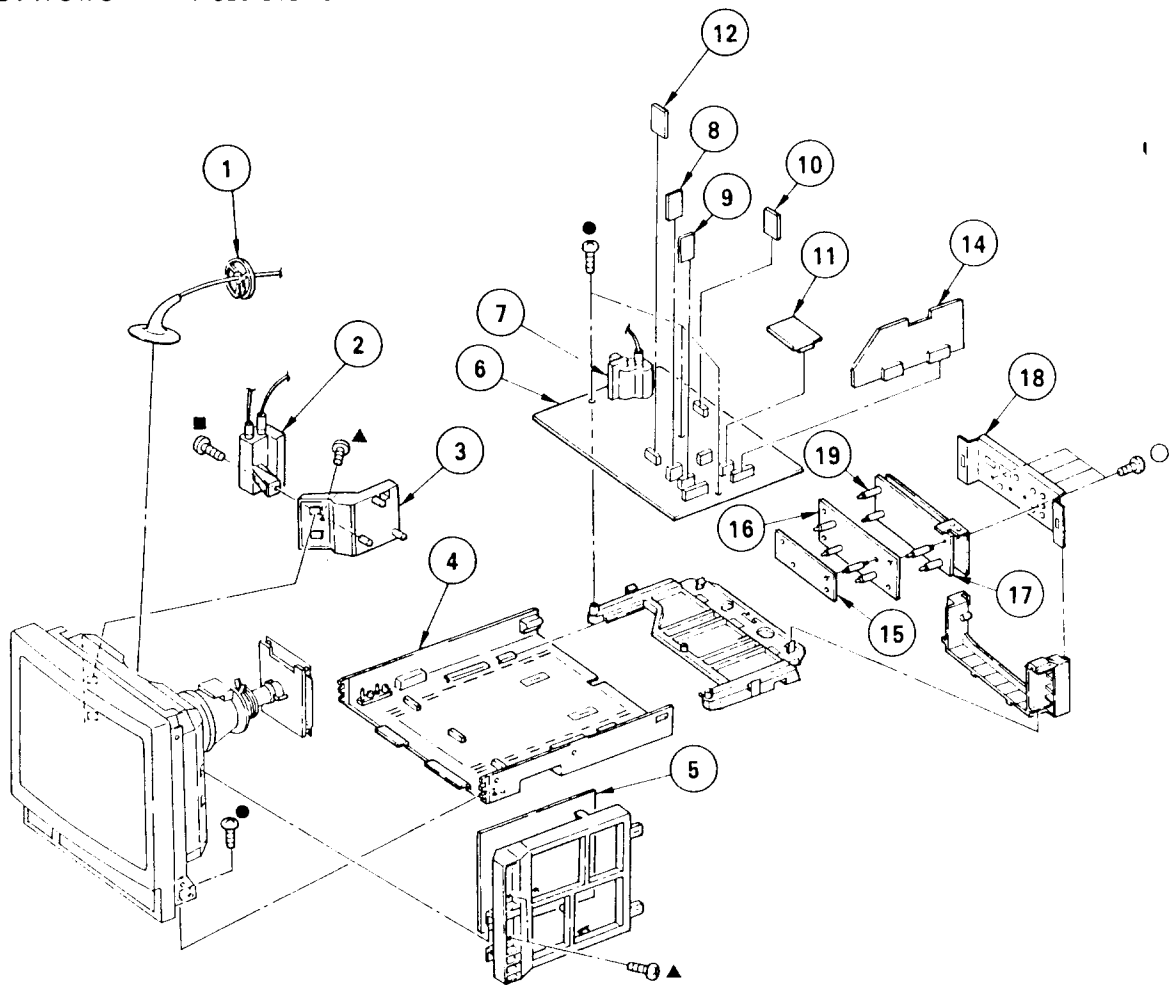
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

7-1. CHASSIS

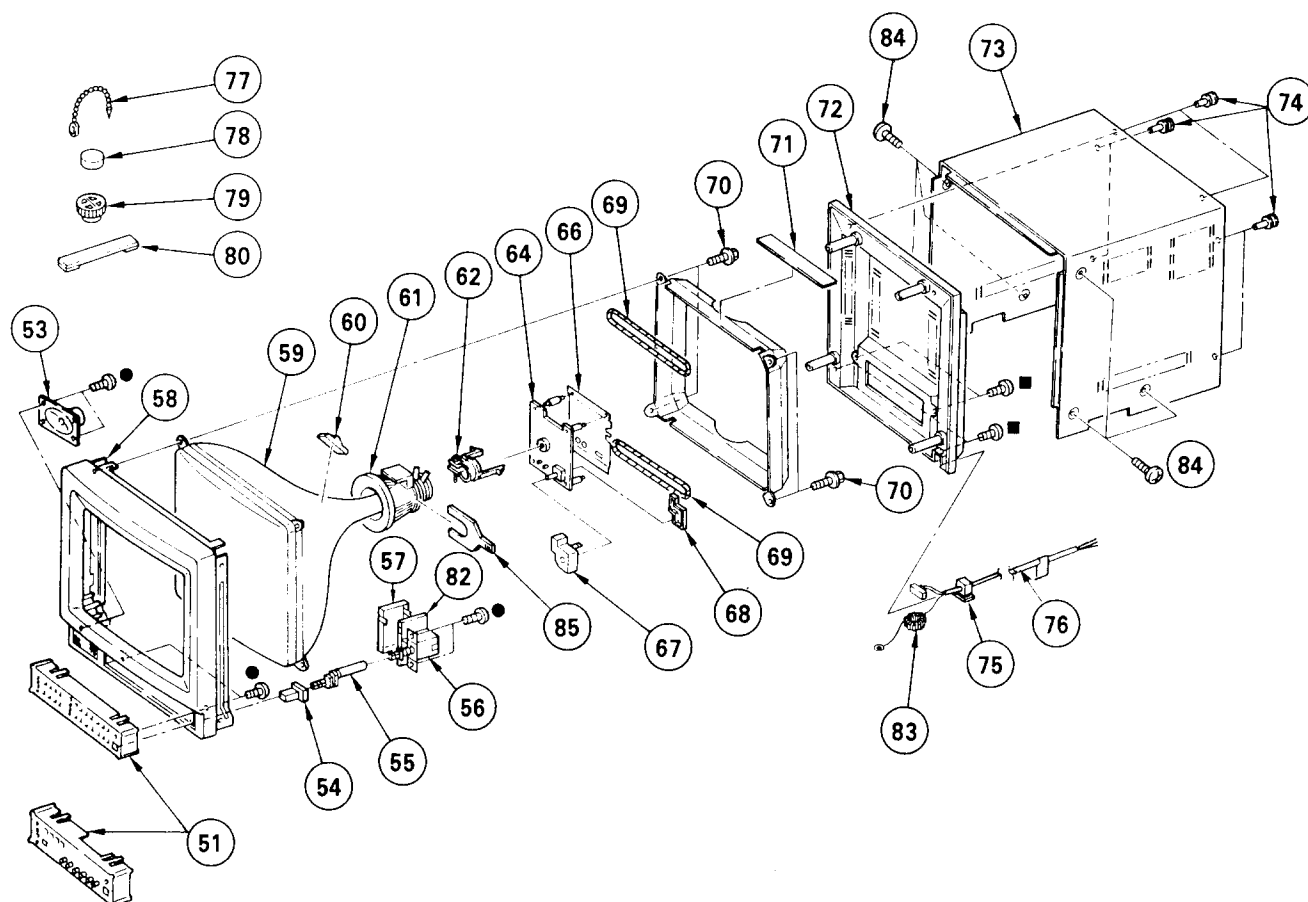
- : BVTP3 x 12 7-685-648-79
- : BVTP4 x 16 7-685-663-79
- ▲: BVTT4 x 8 7-682-561-04
- : BVTP3 x 8 7-685-646-79



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	★3-704-372-01	HOLDER, HV CABLE		14	★A-1135-564-A	BA BOARD, COMPLETE (PVM-1440QM ONLY)	
2	△1-237-614-12	RESISTOR ASSY, HIGH-VOLTAGE			★A-1135-573-A	BA BOARD, COMPLETE (PVM-1442QM/1444QM ONLY)	
3	★4-391-842-01	BRACKET, HVR		15	★A-1270-249-A	QE BOARD, COMPLETE (PVM-1442QM ONLY)	
4	X-4391-805-1	CABINET ASSY, BOTTOM		16	★A-1270-267-A	QG BOARD, COMPLETE (PVM-1440QM ONLY)	
5	★A-1245-456-A	FE BOARD, COMPLETE			★A-1270-248-A	QD BOARD, COMPLETE (PVM-1442QM ONLY)	
6	★A-1296-520-A	A BOARD, COMPLETE			★A-1270-246-A	QB BOARD, COMPLETE (PVM-1441QM ONLY)	
7	△1-439-395-12	TRANSFORMER ASSY, FLYBACK		17	★A-1270-266-A	QF BOARD, COMPLETE (PVM-1440QM ONLY)	
8	★1-629-149-11	W BOARD			★A-1270-247-A	QC BOARD, COMPLETE (PVM-1442QM ONLY)	
9	★1-629-151-11	XA BOARD			★A-1270-245-A	QA BOARD, COMPLETE (PVM-1444QM ONLY)	
10	★1-629-150-11	Y BOARD		18	4-391-843-32	PLATE, TERMINAL (PVM-1440QM ONLY)	
11	★1-629-148-11	V BOARD			4-391-843-12	PLATE, TERMINAL (PVM-1442QM ONLY)	
12	★1-629-219-11	U BOARD (PVM-1440QM ONLY)			4-391-843-02	PLATE, TERMINAL (PVM-1444QM ONLY)	
				19	★3-682-419-01	HOLDER, P.C.B.	

7-2. PICTURE TUBE

- : BVTP3 x 12 7-685-648-79
 ■ : BVTP4 x 16 7-685-663-79



The components identified by shading and mark Δ are critical for safety.
 Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
51	1-466-113-11	CONTROL UNIT (PVM-1440QM ONLY)		66	*4-391-835-01	PLATE (C), SHIELD (PVM-1442QM ONLY)	
	1-466-076-11	CONTROL UNIT (PVM-1442QM ONLY)		67	*4-374-912-01	COVER (MAIN), CV VOL	
	1-466-075-11	CONTROL UNIT (PVM-1444QM ONLY)		68	*4-374-913-01	COVER (REAR LID), CV VOL	
53	1-544-063-11	SPEAKER		69	Δ 1-426-145-13	COIL, DEGAUSSING	
54	4-374-839-11	BUTTON (A)		70	4-307-249-00	SCREW (5), TAPPING	
55	4-391-824-01	JOINT		71	4-391-833-01	CLOTH, PROTECTION	
56	Δ 1-554-967-12	SWITCH, PUSH (AC POWER) (1 KEY)		72	4-391-839-01	COVER, REAR	
57	*4-391-820-01	COVER, AC SWITCH		73	X-4391-810-1	COVER ASSY, TOP	
58	X-4391-804-1	BEZEL ASSY (PVM-1442QM/44QM ONLY)		74	4-391-825-01	RIVET, NYLON	
	X-4391-804-2	BEZEL ASSY (PVM-1440QM ONLY)		75	Δ *4-364-745-01	BUSHING, AC CORD	
59	Δ 8-736-254-05	PICTURE TUBE (A34JHS10X)		76	Δ 1-574-389-12	CORD, POWER	
		(PVM-1440QM ONLY)		77	4-308-870-00	CLIP, LEAD WIRE	
	Δ 8-734-621-05	PICTURE TUBE (M34KBE21X)		78	1-452-032-00	MAGNET, DISK; 10MM ϕ	
		(PVM-1442QM/1444QM ONLY)		79	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
60	3-703-961-01	SPACER, DY		80	X-4309-608-0	PERMALLOY ASSY, CONVERGENCE	
61	Δ 1-451-329-11	DEFLECTION Yoke (Y14FZA)		82	*1-629-153-11	J BOARD	
62	*4-382-050-01	BAND, C PC BOARD		83	1-543-604-11	CORE, RING	
64	*A-1330-986-A	C BOARD, COMPLETE		84	4-847-802-11	*SCREW (OS), CASE, CLAW	
				85	1-452-277-00	MAGNET BMC	

BA

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<MODULE>							
CTR210	1-236-366-11	MODULE, TRAP		Q261	8-729-119-78	TRANSISTOR 2SC2785-HFE	
CTR211	1-236-365-11	MODULE, TRAP		Q262	8-729-119-78	TRANSISTOR 2SC2785-HFE	
PCM290	1-808-628-11	MODULE, PHASE PHM-1		Q263	8-729-119-78	TRANSISTOR 2SC2785-HFE	
SEP270	1-808-654-11	MODULE		Q264	8-729-119-76	TRANSISTOR 2SA1175-HFE	
				Q265	8-729-119-78	TRANSISTOR 2SC2785-HFE	
<DIODE>				Q280	8-729-900-89	TRANSISTOR DTC144ES	
D210	8-719-911-19	DIODE 1SS119		Q401	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D211	8-719-911-19	DIODE 1SS119		Q402	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D212	8-719-911-19	DIODE 1SS119		Q403	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D240	8-719-110-16	DIODE RD10ES-B1		Q404	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D280	8-719-911-19	DIODE 1SS119		Q405	8-729-900-63	TRANSISTOR DTA124ES	
D401	8-719-911-19	DIODE 1SS119		Q406	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D402	8-719-911-19	DIODE 1SS119		Q407	8-729-119-78	TRANSISTOR 2SC2785-HFE	
				Q408	8-729-119-78	TRANSISTOR 2SC2785-HFE	
				Q409	8-729-119-78	TRANSISTOR 2SC2785-HFE	
<DELAY LINE>				Q410	8-729-119-78	TRANSISTOR 2SC2785-HFE	
DL230	1-415-632-11	DELAY LINE, Y		Q411	8-729-119-76	TRANSISTOR 2SA1175-HFE	
<IC>				<RESISTOR>			
FPG280	8-749-920-73	IC BX7595		JW95	1-249-411-11	CARBON 330 5%	1/4W
IC201	8-759-800-81	IC LA7016		R201	1-249-435-11	CARBON 33K 5%	1/4W
IC210	8-759-240-53	IC TC4053BP		R202	1-249-435-11	CARBON 33K 5%	1/4W
IC250	8-759-800-81	IC LA7016		R203	1-249-405-11	CARBON 100 5%	1/4W
IC260	8-759-208-14	IC TC4066BPHB		R204	1-249-421-11	CARBON 2.2K 5%	1/4W
IC261	8-759-208-14	IC TC4066BPHB		R205	1-249-433-11	CARBON 22K 5%	1/4W
IC401	8-751-750-00	IC CX-175		R206	1-249-432-11	CARBON 18K 5%	1/4W
				R207	1-249-409-11	CARBON 220 5%	1/4W
				R210	1-249-437-11	CARBON 47K 5%	1/4W
				R211	1-249-437-11	CARBON 47K 5%	1/4W
<COIL>				R212	1-249-437-11	CARBON 47K 5%	1/4W
L280	1-410-509-11	INDUCTOR 10UH		R213	1-249-429-11	CARBON 10K 5%	1/4W
L282	1-410-470-11	INDUCTOR 10UH		R214	1-249-433-11	CARBON 22K 5%	1/4W
L401	1-410-087-31	INDUCTOR 10MMH		R215	1-249-437-11	CARBON 47K 5%	1/4W
L402	1-408-411-00	INDUCTOR 15UH		R216	1-249-429-11	CARBON 10K 5%	1/4W
L403	1-404-496-00	COIL		R217	1-249-429-11	CARBON 10K 5%	1/4W
L404	1-408-411-00	INDUCTOR 15UH		R218	1-249-425-11	CARBON 4.7K 5%	1/4W
L405	1-404-496-00	COIL		R219	1-249-405-11	CARBON 100 5%	1/4W
L406	1-410-470-11	INDUCTOR 10UH		R220	1-249-428-11	CARBON 8.2K 5%	1/4W
L408	1-410-336-11	INDUCTOR 220UH		R221	1-249-423-11	CARBON 3.3K 5%	1/4W
<TRANSISTOR>				R222	1-249-439-11	CARBON 68K 5%	1/4W
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE		R224	1-249-439-11	CARBON 68K 5%	1/4W
Q210	8-729-119-78	TRANSISTOR 2SC2785-HFE		R225	1-249-439-11	CARBON 68K 5%	1/4W
Q211	8-729-119-76	TRANSISTOR 2SA1175-HFE		R226	1-249-439-11	CARBON 68K 5%	1/4W
Q212	8-729-900-89	TRANSISTOR DTC144ES		R227	1-249-386-11	CARBON 2.7 5%	1/4W F
Q213	8-729-900-89	TRANSISTOR DTC144ES		R228	1-249-433-11	CARBON 22K 5%	1/4W
Q214	8-729-119-78	TRANSISTOR 2SC2785-HFE		R229	1-249-433-11	CARBON 22K 5%	1/4W
Q221	8-729-900-89	TRANSISTOR DTC144ES		R230	1-249-429-11	CARBON 10K 5%	1/4W
Q222	8-729-900-63	TRANSISTOR DTA124ES		R231	1-249-422-11	CARBON 2.7K 5%	1/4W
Q230	8-729-119-78	TRANSISTOR 2SC2785-HFE		R232	1-249-415-11	CARBON 680 5%	1/4W
Q231	8-729-119-78	TRANSISTOR 2SC2785-HFE		R233	1-249-415-11	CARBON 680 5%	1/4W
Q232	8-729-119-78	TRANSISTOR 2SC2785-HFE		R234	1-249-411-11	CARBON 330 5%	1/4W
Q233	8-729-119-76	TRANSISTOR 2SA1175-HFE		R235	1-249-416-11	CARBON 820 5%	1/4W
Q234	8-729-119-78	TRANSISTOR 2SC2785-HFE		R236	1-249-411-11	CARBON 330 5%	1/4W
Q240	8-729-177-42	TRANSISTOR 2SD774-3		R237	1-249-411-11	CARBON 330 5%	1/4W
Q241	8-729-119-78	TRANSISTOR 2SC2785-HFE		R238	1-249-405-11	CARBON 100 5%	1/4W
Q242	8-729-119-78	TRANSISTOR 2SC2785-HFE		R239	1-249-417-11	CARBON 1K 5%	1/4W
Q243	8-729-119-78	TRANSISTOR 2SC2785-HFE		R240	1-249-407-11	CARBON 150 5%	1/4W
Q258	8-729-119-78	TRANSISTOR 2SC2785-HFE		R241	1-247-895-00	CARBON 470K 5%	1/4W
Q259	8-729-119-78	TRANSISTOR 2SC2785-HFE		R242	1-249-421-11	CARBON 2.2K 5%	1/4W
Q260	8-729-900-89	TRANSISTOR DTC144ES		R243	1-249-435-11	CARBON 33K 5%	1/4W
				R244	1-249-435-11	CARBON 33K 5%	1/4W
				R245	1-249-422-11	CARBON 2.7K 5%	1/4W

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

PVM-1440QM/1442QM/1444QM

BA

FE

REF. NO.	PART NO.	DESCRIPTION				REMARK	REF. NO.	PART NO.	DESCRIPTION				REMARK
R246	1-249-435-11	CARBON	33K	5%	1/4W		R422	1-249-419-11	CARBON	1.5K	5%	1/4W	
R247	1-249-435-11	CARBON	33K	5%	1/4W								
R248	1-249-422-11	CARBON	2.7K	5%	1/4W		R423	1-249-421-11	CARBON	2.2K	5%	1/4W	
R249	1-249-432-11	CARBON	18K	5%	1/4W		R424	1-249-429-11	CARBON	10K	5%	1/4W	
R250	1-249-405-11	CARBON	100	5%	1/4W		R425	1-249-414-11	CARBON	560	5%	1/4W	
							R426	1-249-422-11	CARBON	2.7K	5%	1/4W	
R251	1-249-433-11	CARBON	22K	5%	1/4W		R427	1-249-423-11	CARBON	3.3K	5%	1/4W	
R252	1-249-421-11	CARBON	2.2K	5%	1/4W								
R253	1-249-415-11	CARBON	680	5%	1/4W		R428	1-249-412-11	CARBON	390	5%	1/4W	
R254	1-249-420-11	CARBON	1.8K	5%	1/4W		R429	1-249-425-11	CARBON	4.7K	5%	1/4W	
R255	1-249-417-11	CARBON	1K	5%	1/4W		R430	1-249-408-11	CARBON	180	5%	1/4W	
							R431	1-249-411-11	CARBON	330	5%	1/4W	
R256	1-249-405-11	CARBON	100	5%	1/4W		R432	1-249-422-11	CARBON	2.7K	5%	1/4W	
R257	1-249-417-11	CARBON	1K	5%	1/4W								
R258	1-249-405-11	CARBON	100	5%	1/4W		R433	1-249-437-11	CARBON	47K	5%	1/4W	
R259	1-249-441-11	CARBON	100K	5%	1/4W		R435	1-249-433-11	CARBON	22K	5%	1/4W	
R260	1-249-425-11	CARBON	4.7K	5%	1/4W		R436	1-249-437-11	CARBON	47K	5%	1/4W	
							R437	1-249-437-11	CARBON	47K	5%	1/4W	
R261	1-247-891-00	CARBON	330K	5%	1/4W		R438	1-249-437-11	CARBON	47K	5%	1/4W	
R262	1-249-435-11	CARBON	33K	5%	1/4W								
R263	1-249-422-11	CARBON	2.7K	5%	1/4W		R439	1-249-426-11	CARBON	5.6K	5%	1/4W	
R264	1-249-422-11	CARBON	2.7K	5%	1/4W		R440	1-249-437-11	CARBON	47K	5%	1/4W	
R268	1-249-417-11	CARBON	1K	5%	1/4W		R441	1-249-440-11	CARBON	82K	5%	1/4W	
							R442	1-249-405-11	CARBON	100	5%	1/4W	
R270	1-249-417-11	CARBON	1K	5%	1/4W		R443	1-249-405-11	CARBON	100	5%	1/4W	
R271	1-249-417-11	CARBON	1K	5%	1/4W								
R272	1-249-417-11	CARBON	1K	5%	1/4W		R444	1-249-432-11	CARBON	18K	5%	1/4W	
R273	1-249-426-11	CARBON	5.6K	5%	1/4W		R445	1-249-432-11	CARBON	18K	5%	1/4W	
R274	1-249-429-11	CARBON	10K	5%	1/4W		R446	1-249-437-11	CARBON	47K	5%	1/4W	
							R447	1-249-437-11	CARBON	47K	5%	1/4W	
R275	1-249-413-11	CARBON	470	5%	1/4W		R448	1-249-435-11	CARBON	33K	5%	1/4W	
R276	1-249-417-11	CARBON	1K	5%	1/4W								
R277	1-247-891-00	CARBON	330K	5%	1/4W		R449	1-249-417-11	CARBON	1K	5%	1/4W	
R278	1-247-891-00	CARBON	330K	5%	1/4W								
R279	1-249-429-11	CARBON	10K	5%	1/4W								
R280	1-249-429-11	CARBON	10K	5%	1/4W								
R281	1-249-429-11	CARBON	10K	5%	1/4W								
R282	1-249-429-11	CARBON	10K	5%	1/4W		RV290	1-228-994-00	RES, ADJ, CARBON	10K			
R283	1-249-429-11	CARBON	10K	5%	1/4W		RV291	1-228-991-00	RES, ADJ, CARBON	2.2K			
R284	1-249-429-11	CARBON	10K	5%	1/4W		RV292	1-228-991-00	RES, ADJ, CARBON	2.2K			
R285	1-249-429-11	CARBON	10K	5%	1/4W								
R290	1-249-441-11	CARBON	100K	5%	1/4W								
R291	1-249-413-11	CARBON	470	5%	1/4W								
R292	1-249-435-11	CARBON	33K	5%	1/4W								
R293	1-249-435-11	CARBON	33K	5%	1/4W								
R294	1-249-405-11	CARBON	100	5%	1/4W								
R295	1-249-405-11	CARBON	100	5%	1/4W								
R296	1-249-405-11	CARBON	100	5%	1/4W								
R297	1-249-405-11	CARBON	100	5%	1/4W								
R299	1-249-429-11	CARBON	10K	5%	1/4W								
R401	1-249-419-11	CARBON	1.5K	5%	1/4W								
R403	1-247-881-00	CARBON	120K	5%	1/4W								
R405	1-215-429-00	METAL	2.2K	1%	1/6W								
R406	1-249-429-11	CARBON	10K	5%	1/4W								
R407	1-249-422-11	CARBON	2.7K	5%	1/4W								
R408	1-249-414-11	CARBON	560	5%	1/4W								
R409	1-249-421-11	CARBON	2.2K	5%	1/4W								
R410	1-249-419-11	CARBON	1.5K	5%	1/4W								
R411	1-249-419-11	CARBON	1.5K	5%	1/4W								
R412	1-249-423-11	CARBON	3.3K	5%	1/4W								
R413	1-249-434-11	CARBON	27K	5%	1/4W								
R414	1-247-895-00	CARBON	470K	5%	1/4W								
R415	1-249-412-11	CARBON	390	5%	1/4W								
R416	1-249-415-11	CARBON	680	5%	1/4W								
R417	1-249-409-11	CARBON	220	5%	1/4W								
R418	1-249-425-11	CARBON	4.7K	5%	1/4W								
R419	1-249-433-11	CARBON	22K	5%	1/4W								
R420	1-215-432-00	METAL	3K	1%	1/6W								
R421	1-249-419-11	CARBON	1.5K	5%	1/4W								

F E

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C618	1-162-318-11	CERAMIC	0.001MF 10%	500V	IC651	8-759-927-49	IC IR9431
C619	1-123-875-11	ELECT	10MF 20%	50V	<COIL>		
C620	1-124-446-11	ELECT	47MF 20%	10V	L621	1-407-365-00	COIL, CHOKE
C621	1-130-475-00	FILM	0.0022MF 5%	50V	L622	1-408-226-00	INDUCTOR 82UH
C622	1-104-067-00	POLYSTYRENE	390PF 5%	50V	L623	1-410-397-21	FERRITE BEAD INDUCTOR
C623	1-126-233-11	ELECT	22MF 20%	25V	L624 Δ	1-410-396-31	FERRITE BEAD INDUCTOR
C624	1-162-318-11	CERAMIC	0.001MF 10%	500V	L625 Δ	1-410-396-31	FERRITE BEAD INDUCTOR
C625	1-124-463-00	ELECT	0.1MF 20%	50V	L626 Δ	1-459-946-11	COIL, NOISE FILTER
C626	1-161-973-00	CERAMIC	220PF 10%	400V	L627 Δ	1-459-946-11	COIL, NOISE FILTER
C627	1-136-066-00	FILM	0.003MF 3%	2KV	<IC LINK>		
C631	1-162-116-00	CERAMIC	680PF 10%	2KV	PS602Δ	1-532-838-21	LINK, IC 0.8A/125V
C633	1-162-131-11	CERAMIC	220PF 10%	2KV	<TRANSISTOR>		
C651	1-125-494-11	ELECT(BLOCK)	560MF 20%	160V	Q611	8-729-119-80	TRANSISTOR 2SC2688-LK
C654	1-102-030-00	CERAMIC	330PF 10%	500V	Q612	8-729-119-80	TRANSISTOR 2SC2688-LK
C656	1-102-030-00	CERAMIC	330PF 10%	500V	Q613	8-729-802-14	TRANSISTOR 2SC3460
C657	1-161-973-00	CERAMIC	220PF 10%	400V	Q614	8-729-119-80	TRANSISTOR 2SC2688-LK
C658	1-124-499-11	ELECT	1MF 20%	50V	Q615	8-729-119-78	TRANSISTOR 2SC2785-HFE
C659	1-108-614-11	MYLAR	0.001MF 10%	100V	Q617	8-729-119-78	TRANSISTOR 2SC2785-HFE
C660 Δ	1-162-578-51	CERAMIC	0.0047MF 20%	400V	<RESISTOR>		
C661 Δ	1-162-578-51	CERAMIC	0.0047MF 20%	400V	R601	1-205-712-00	WIREWOUND 3.9 5% 20W
C671	1-126-103-11	ELECT	470MF 20%	16V	R602 Δ	1-214-947-21	METAL 2.7M 1% 1/2W
C674	1-126-105-11	ELECT	1000MF 20%	35V	R603 Δ	1-247-721-51	CARBON 4.7K 5% 1/4W F
C675	1-162-116-00	CERAMIC	680PF 10%	2KV	R604 Δ	1-247-721-51	CARBON 4.7K 5% 1/4W F
C676	1-102-973-00	CERAMIC	100PF 5%	50V	R605	1-202-720-00	SOLID 1.2M 10% 1/2W
<DIODE>				R606	1-249-423-11	CARBON 3.3K 5% 1/4W	
D601 Δ	8-719-503-06	DIODE S3WB60Z		R610	1-249-405-11	CARBON 100 5% 1/4W	
D605	8-719-911-19	DIODE 1SS119		R611	1-216-444-11	METAL OXIDE 82K 5% 1W F	
D606	8-719-911-19	DIODE 1SS119		R612	1-216-444-11	METAL OXIDE 82K 5% 1W F	
D607	8-719-110-90	DIODE RD39ES-B4		R613	1-249-496-11	CARBON 100K 5% 1/2W F	
D608	8-719-110-90	DIODE RD39ES-B4		R614	1-215-923-00	METAL OXIDE 10K 5% 3W F	
D611	8-719-118-34	DIODE RD110E-B		R615	1-247-887-00	CARBON 220K 5% 1/4W	
D612	8-719-925-06	DIODE ERC25-06S		R616	1-247-711-11	CARBON 680 5% 1/4W	
D613	8-719-200-02	DIODE 10E2		R617	1-247-725-11	CARBON 10K 5% 1/4W	
D614	8-719-925-06	DIODE ERC25-06S		R618	1-249-396-11	CARBON 18 5% 1/4W	
D615	8-719-109-97	DIODE RD6.8E-B2		R619	1-247-710-11	CARBON 560 5% 1/4W F	
D616	8-719-925-06	DIODE ERC25-06S		R620	1-217-192-21	WIREWOUND 0.22 10% 2W F	
D617	8-719-911-19	DIODE 1SS119		R621	1-249-423-11	CARBON 3.3K 5% 1/4W	
D619	8-719-911-19	DIODE 1SS119		R622	1-249-434-11	CARBON 27K 5% 1/4W	
D620	8-719-925-06	DIODE ERC25-06S		R623	1-215-457-00	METAL 33K 1% 1/6W	
D622	8-719-100-74	DIODE RD16E-B2		R624	1-249-429-11	CARBON 10K 5% 1/4W	
D651	8-719-300-33	DIODE RU3AM		R625	1-247-726-11	CARBON 33K 5% 1/4W	
D652	8-719-200-02	DIODE 10E2		R626	1-249-411-11	CARBON 330 5% 1/4W	
D653	8-719-300-76	DIODE RH-1A		R627	1-249-438-11	CARBON 56K 5% 1/4W	
D654	8-719-911-19	DIODE 1SS119		R628	1-247-887-00	CARBON 220K 5% 1/4W	
D655	8-719-110-41	DIODE RD15ES-B2		R629	1-249-428-11	CARBON 8.2K 5% 1/4W	
<CONNECTOR>				R630	1-249-436-11	CARBON 39K 5% 1/4W	
F1	*1-568-106-11	PIN, CONNECTOR 7P		R631	1-249-424-11	CARBON 3.9K 5% 1/4W	
F3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		R632	1-247-753-11	CARBON 1.2K 5% 1/2W F	
F5	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P		R633	1-249-441-11	CARBON 100K 5% 1/4W	
F6	*1-506-371-00	PIN, CONNECTOR 2P		R634	1-249-417-11	CARBON 1K 5% 1/4W	
F7	*1-568-106-11	PIN, CONNECTOR 7P		R635	1-205-928-11	WIREWOUND 180 10% 10W	
<FUSE>				R636	1-205-927-11	WIREWOUND 2.2K 10% 10W	
F601 Δ	1-532-350-11	FUSE, TIME-LAG 4A/250V		R637	1-216-465-11	METAL OXIDE 27K 5% 2W F	
	*1-533-189-11	HOLDER, FUSE; F601		R640	1-249-438-11	CARBON 56K 5% 1/4W	
<IC>				R644	1-247-885-00	CARBON 180K 5% 1/4W	
IC601	8-759-100-75	IC UPC1394C					
IC602	8-719-939-00	IC PC1115					

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

PVM-1440QM/1442QM/1444QM

FE

QA

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R648	1-247-887-00	CARBON	220K 5% 1/4W	C122	1-124-589-11	ELECT	47MF 20% 16V
R651	1-247-881-00	CARBON	120K 5% 1/4W	C123	1-124-589-11	ELECT	47MF 20% 16V
R652	1-215-924-00	METAL OXIDE	15K 5% 3W F	C124	1-124-589-11	ELECT	47MF 20% 16V
R653	1-249-417-11	CARBON	1K 5% 1/4W	C125	1-124-589-11	ELECT	47MF 20% 16V
R654	1-247-881-00	CARBON	120K 5% 1/4W	C137	1-126-160-11	ELECT	1MF 20% 50V
R655	1-249-469-11	CARBON	100K 5% 1/4W	C138	1-126-160-11	ELECT	1MF 20% 50V
R656	1-247-895-00	CARBON	470K 5% 1/4W	C139	1-124-589-11	ELECT	47MF 20% 16V
R657	1-247-883-00	CARBON	150K 5% 1/4W	C140	1-124-589-11	ELECT	47MF 20% 16V
R658 Δ	1-247-289-11	CARBON	8.2M 5% 1W	C141	1-124-589-11	ELECT	47MF 20% 16V
R661	1-249-443-11	CARBON	0.47 5% 1/4W F	C153	1-124-589-11	ELECT	47MF 20% 16V
R665	1-249-420-11	CARBON	1.8K 5% 1/4W	C161	1-124-589-11	ELECT	47MF 20% 16V
R669	1-249-443-11	CARBON	0.47 5% 1/4W F	C162	1-161-021-11	CERAMIC	0.047MF 10% 25V
R671	1-249-410-11	CARBON	270 5% 1/4W	C163	1-161-021-11	CERAMIC	0.047MF 10% 25V
R682	1-215-923-00	METAL OXIDE	10K 5% 3W F	<IC>			
R688	1-249-427-11	CARBON	6.8K 5% 1/4W	IC101	8-759-800-81	IC LA7016	
R691	1-216-489-11	METAL OXIDE	27K 5% 3W F	IC102	8-759-710-31	IC NJM2243S	
R692	1-202-719-00	SOLID	1M 10% 1/2W	IC103	8-759-800-81	IC LA7016	
<VARIABLE RESISTOR>				<TRANSISTOR>			
RV601	1-230-504-11	RES, ADJ, CARBON 220		Q106	8-729-119-78	TRANSISTOR 2SC2785-HFE	
<TRANSFORMER>				<RESISTOR>			
T602	1-437-079-00	TRANSFORMER, HORIZONTAL DRIVE		R101	1-249-429-11	CARBON	10K 5% 1/4W
T603 Δ	1-448-895-11	SRT		R103	1-249-405-11	CARBON	100 5% 1/4W
T604 Δ	1-421-776-11	LFT		R104	1-249-433-11	CARBON	22K 5% 1/4W
T605 Δ	1-421-758-11	TRANSFORMER, LINE FILTER (LFT)		R105	1-249-433-11	CARBON	22K 5% 1/4W
<THERMISTOR>				R106	1-249-429-11	CARBON	10K 5% 1/4W
TH611	1-800-200-00	THERMISTOR S-3K		R107	1-249-417-11	CARBON	1K 5% 1/4W
THP601 Δ	1-808-059-21	THERMISTOR, POSITIVE		R108	1-249-429-11	CARBON	10K 5% 1/4W
*****				R110	1-249-405-11	CARBON	100 5% 1/4W
*A-1270-245-A	QA BOARD, COMPLETE (PVM-1444QM ONLY)			R111	1-249-433-11	CARBON	22K 5% 1/4W
*****				R112	1-249-433-11	CARBON	22K 5% 1/4W
1-537-191-11	TERMINAL BOARD, INPUT/OUTPUT			R113	1-247-104-00	CARBON	75 5% 1/4W
1-537-201-11	TERMINAL BOARD, INPUT OUTPUT			R115	1-247-104-00	CARBON	75 5% 1/4W
*4-379-104-01	INSULATOR, SLIDE SW			R117	1-249-405-11	CARBON	100 5% 1/4W
<CAPACITOR>				R118	1-249-433-11	CARBON	22K 5% 1/4W
C101	1-124-589-11	ELECT	47MF 20% 16V	R119	1-249-433-11	CARBON	22K 5% 1/4W
C102	1-126-160-11	ELECT	1MF 20% 50V	R120	1-249-429-11	CARBON	10K 5% 1/4W
C103	1-126-160-11	ELECT	1MF 20% 50V	R121	1-249-405-11	CARBON	100 5% 1/4W
C105	1-126-160-11	ELECT	1MF 20% 50V	R122	1-247-104-00	CARBON	75 5% 1/4W
C106	1-126-160-11	ELECT	1MF 20% 50V	R123	1-249-405-11	CARBON	100 5% 1/4W
C107	1-126-160-11	ELECT	1MF 20% 50V	R124	1-249-421-11	CARBON	2.2K 5% 1/4W
C108	1-124-589-11	ELECT	47MF 20% 16V	R125	1-249-429-11	CARBON	10K 5% 1/4W
C109	1-126-160-11	ELECT	1MF 20% 50V	R126	1-247-104-00	CARBON	75 5% 1/4W
C110	1-126-160-11	ELECT	1MF 20% 50V	R127	1-247-104-00	CARBON	75 5% 1/4W
C111	1-126-160-11	ELECT	1MF 20% 50V	R128	1-247-104-00	CARBON	75 5% 1/4W
C112	1-124-589-11	ELECT	47MF 20% 16V	R129	1-247-104-00	CARBON	75 5% 1/4W
C113	1-124-589-11	ELECT	47MF 20% 16V	R130	1-247-104-00	CARBON	75 5% 1/4W
C114	1-124-589-11	ELECT	47MF 20% 16V	R131	1-247-104-00	CARBON	75 5% 1/4W
C115	1-124-589-11	ELECT	47MF 20% 16V	R132	1-249-417-11	CARBON	1K 5% 1/4W
C116	1-161-021-11	CERAMIC	0.047MF 10% 25V	R168	1-249-429-11	CARBON	10K 5% 1/4W
C117	1-124-589-11	ELECT	47MF 20% 16V	R177	1-249-405-11	CARBON	100 5% 1/4W
C118	1-124-589-11	ELECT	47MF 20% 16V	R178	1-249-433-11	CARBON	22K 5% 1/4W
C119	1-126-160-11	ELECT	1MF 20% 50V	R179	1-249-433-11	CARBON	22K 5% 1/4W
C120	1-126-160-11	ELECT	1MF 20% 50V	R184	1-249-420-11	CARBON	1.8K 5% 1/4W
C121	1-124-589-11	ELECT	47MF 20% 16V	* <VARIABLE RESISTOR>			
<VARIABLE RESISTOR>				RV101	1-228-848-00	RES, VAR, CARBON 10K	

QA

QB

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<SWITCH>							
S101	1-570-145-11	SWITCH, SLIDE		Q116	8-729-119-78	TRANSISTOR 2SC2785-HFE	
S102	1-570-145-11	SWITCH, SLIDE		Q120	8-729-900-65	TRANSISTOR DTA144ES	
*****				Q121	8-729-900-65	TRANSISTOR DTA144ES	
<CAPACITOR>				<CONNECTOR>			
*A-1270-246-A QB BOARD, COMPLETE (PVM-1444QM ONLY)				QB6	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)	
*****				<RESISTOR>			
C126	1-124-477-11	ELECT 47MF	20% 25V	R133	1-249-405-11	CARBON 100 5% 1/4W	
C127	1-124-477-11	ELECT 47MF	20% 25V	R134	1-249-433-11	CARBON 22K 5% 1/4W	
C128	1-124-477-11	ELECT 47MF	20% 25V	R135	1-249-433-11	CARBON 22K 5% 1/4W	
C129	1-161-021-11	CERAMIC 0.047MF	10% 25V	R137	1-249-433-11	CARBON 22K 5% 1/4W	
C130	1-124-477-11	ELECT 47MF	20% 25V	R138	1-249-433-11	CARBON 22K 5% 1/4W	
C131	1-124-477-11	ELECT 47MF	20% 25V	R139	1-249-405-11	CARBON 100 5% 1/4W	
C132	1-124-477-11	ELECT 47MF	20% 25V	R140	1-249-433-11	CARBON 22K 5% 1/4W	
C133	1-124-477-11	ELECT 47MF	20% 25V	R141	1-249-433-11	CARBON 22K 5% 1/4W	
C134	1-124-477-11	ELECT 47MF	20% 25V	R142	1-249-433-11	CARBON 22K 5% 1/4W	
C135	1-124-477-11	ELECT 47MF	20% 25V	R143	1-249-433-11	CARBON 22K 5% 1/4W	
C136	1-124-477-11	ELECT 47MF	20% 25V	R144	1-249-412-11	CARBON 390 5% 1/4W	
C142	1-124-631-11	ELECT 47MF	20% 16V	R145	1-249-405-11	CARBON 100 5% 1/4W	
C143	1-124-477-11	ELECT 47MF	20% 25V	R146	1-249-436-11	CARBON 39K 5% 1/4W	
C144	1-124-477-11	ELECT 47MF	20% 25V	R147	1-249-435-11	CARBON 33K 5% 1/4W	
C145	1-124-477-11	ELECT 47MF	20% 25V	R149	1-249-433-11	CARBON 22K 5% 1/4W	
C146	1-124-477-11	ELECT 47MF	20% 25V	R150	1-249-433-11	CARBON 22K 5% 1/4W	
C147	1-101-004-00	CERAMIC 0.01MF	50V	R151	1-249-429-11	CARBON 10K 5% 1/4W	
C148	1-101-004-00	CERAMIC 0.01MF	50V	R152	1-249-429-11	CARBON 10K 5% 1/4W	
C149	1-124-478-11	ELECT 100MF	20% 25V	R153	1-249-417-11	CARBON 1K 5% 1/4W	
C150	1-124-499-11	ELECT 1MF	20% 50V	R154	1-249-422-11	CARBON 2.7K 5% 1/4W	
C151	1-161-021-11	CERAMIC 0.047MF	10% 25V	R155	1-215-383-00	METAL 27 1% 1/6W	
C152	1-124-925-11	ELECT 2.2MF	20% 50V	R161	1-215-397-00	METAL 100 1% 1/6W	
C154	1-101-004-00	CERAMIC 0.01MF	50V	R162	1-215-397-00	METAL 100 1% 1/6W	
C169	1-124-477-11	ELECT 47MF	20% 25V	R163	1-249-422-11	CARBON 2.7K 5% 1/4W	
<DIODE>				R164	1-215-431-00	METAL 2.7K 1% 1/6W	
D101	8-719-911-19	DIODE 1SS119		R165	1-249-422-11	CARBON 2.7K 5% 1/4W	
D102	8-719-911-19	DIODE 1SS119		R166	1-215-431-00	METAL 2.7K 1% 1/6W	
D105	8-719-911-19	DIODE 1SS119		R167	1-249-422-11	CARBON 2.7K 5% 1/4W	
D106	8-719-911-19	DIODE 1SS119		R169	1-249-429-11	CARBON 10K 5% 1/4W	
D111	8-719-911-19	DIODE 1SS119		R170	1-249-437-11	CARBON 47K 5% 1/4W	
D112	8-719-911-19	DIODE 1SS119		R171	1-249-437-11	CARBON 47K 5% 1/4W	
<IC>				R172	1-249-417-11	CARBON 1K 5% 1/4W	
IC104	8-759-800-81	IC LA7016		R173	1-249-405-11	CARBON 100 5% 1/4W	
IC105	8-759-800-81	IC LA7016		R175	1-249-433-11	CARBON 22K 5% 1/4W	
IC106	8-759-710-31	IC NJM2243S		R176	1-249-433-11	CARBON 22K 5% 1/4W	
IC107	8-759-800-81	IC LA7016		R180	1-249-417-11	CARBON 1K 5% 1/4W	
IC108	8-759-240-11	IC TC4011BP		R181	1-249-417-11	CARBON 1K 5% 1/4W	
<TRANSISTOR>				R182	1-249-409-11	CARBON 220 5% 1/4W	
Q101	8-729-900-36	TRANSISTOR DTC124ES		R183	1-249-409-11	CARBON 220 5% 1/4W	
Q103	8-729-119-78	TRANSISTOR 2SC2785-HFE		R186	1-249-435-11	CARBON 33K 5% 1/4W	
Q104	8-729-119-78	TRANSISTOR 2SC2785-HFE		R187	1-249-417-11	CARBON 1K 5% 1/4W	
Q110	8-729-119-76	TRANSISTOR 2SA1175-HFE		R188	1-249-435-11	CARBON 33K 5% 1/4W	
Q111	8-729-119-76	TRANSISTOR 2SA1175-HFE		R189	1-249-433-11	CARBON 22K 5% 1/4W	
Q112	8-729-119-76	TRANSISTOR 2SA1175-HFE		R190	1-249-433-11	CARBON 22K 5% 1/4W	
Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE		R191	1-249-420-11	CARBON 1.8K 5% 1/4W	
Q114	8-729-119-78	TRANSISTOR 2SC2785-HFE		R192	1-249-420-11	CARBON 1.8K 5% 1/4W	
Q115	8-729-119-78	TRANSISTOR 2SC2785-HFE		R193	1-249-420-11	CARBON 1.8K 5% 1/4W	
				R194	1-215-419-00	METAL 820 1% 1/6W	
				R197	1-249-417-11	CARBON 1K 5% 1/4W	
				R198	1-249-429-11	CARBON 10K 5% 1/4W	
				R199	1-249-417-11	CARBON 1K 5% 1/4W	
				R201	1-249-405-11	CARBON 100 5% 1/4W	
				R202	1-249-405-11	CARBON 100 5% 1/4W	

QB

Qc

Qd

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R203	1-249-405-11	CARBON	100 5% 1/4W	R108	1-249-405-11	CARBON	100 5% 1/4W
R204	1-249-425-11	CARBON	4.7K 5% 1/4W	R109	1-247-104-00	CARBON	75 5% 1/4W
R205	1-249-441-11	CARBON	100K 5% 1/4W	R110	1-247-104-00	CARBON	75 5% 1/4W
R206	1-249-433-11	CARBON	22K 5% 1/4W	R111	1-249-429-11	CARBON	10K 5% 1/4W
R207	1-249-441-11	CARBON	100K 5% 1/4W	R112	1-249-405-11	CARBON	100 5% 1/4W
R208	1-249-415-11	CARBON	680 5% 1/4W	R113	1-249-429-11	CARBON	10K 5% 1/4W
R209	1-249-405-11	CARBON	100 5% 1/4W	R114	1-247-104-00	CARBON	75 5% 1/4W
R210	1-249-405-11	CARBON	100 5% 1/4W	R115	1-249-405-11	CARBON	100 5% 1/4W
R211	1-249-417-11	CARBON	1K 5% 1/4W	R116	1-247-704-11	CARBON	220 5% 1/4W
R212	1-249-420-11	CARBON	1.8K 5% 1/4W	R117	1-247-703-11	CARBON	180 5% 1/4W
R213	1-249-426-11	CARBON	5.6K 5% 1/4W	R118	1-247-703-11	CARBON	180 5% 1/4W
R214	1-215-436-00	METAL	4.3K 1% 1/6W	R119	1-249-417-11	CARBON	1K 5% 1/4W
R215	1-215-436-00	METAL	4.3K 1% 1/6W	R121	1-249-417-11	CARBON	1K 5% 1/4W
*****				R122	1-215-393-00	METAL	68 1% 1/6W
*A-1270-247-A QC BOARD, COMPLETE (PVM-1442QM ONLY)				R123	1-249-417-11	CARBON	1K 5% 1/4W
*****				R125	1-249-405-11	CARBON	100 5% 1/4W
1-537-191-11 TERMINAL BOARD, INPUT/OUTPUT				R126	1-249-433-11	CARBON	22K 5% 1/4W
1-537-192-11 TERMINAL BOARD, INPUT/OUTPUT				R127	1-249-433-11	CARBON	22K 5% 1/4W
*4-379-104-01 INSULATOR, SLIDE SW				R128	1-249-429-11	CARBON	10K 5% 1/4W
<CAPACITOR>				R129	1-247-104-00	CARBON	75 5% 1/4W
C101	1-124-589-11	ELECT	47MF 20% 16V	R130	1-247-104-00	CARBON	75 5% 1/4W
C102	1-126-160-11	ELECT	1MF 20% 50V	R131	1-247-104-00	CARBON	75 5% 1/4W
C103	1-126-160-11	ELECT	1MF 20% 50V	R132	1-249-417-11	CARBON	1K 5% 1/4W
C104	1-161-021-11	CERAMIC	0.047MF 10% 25V	R133	1-247-104-00	CARBON	75 5% 1/4W
C105	1-126-160-11	ELECT	1MF 20% 50V	R134	1-249-417-11	CARBON	1K 5% 1/4W
C106	1-126-160-11	ELECT	1MF 20% 50V	R220	1-215-429-00	METAL	2.2K 1% 1/6W
C107	1-124-589-11	ELECT	47MF 20% 16V	R221	1-215-429-00	METAL	2.2K 1% 1/6W
C108	1-124-589-11	ELECT	47MF 20% 16V	R222	1-215-429-00	METAL	2.2K 1% 1/6W
C109	1-124-589-11	ELECT	47MF 20% 16V	R254	1-249-420-11	CARBON	1.8K 5% 1/4W
C110	1-124-589-11	ELECT	47MF 20% 16V	R298	1-249-431-11	CARBON	15K 5% 1/4W
C111	1-124-589-11	ELECT	47MF 20% 16V	<VARIABLE RESISTOR>			
C112	1-124-589-11	ELECT	47MF 20% 16V	RV101	1-228-848-00	RES, VAR, CARBON 10K	
C113	1-124-589-11	ELECT	47MF 20% 16V	RV102	1-228-848-00	RES, VAR, CARBON 10K	
C114	1-126-160-11	ELECT	1MF 20% 50V	<SWITCH>			
C115	1-126-160-11	ELECT	1MF 20% 50V	S101	1-570-145-11	SWITCH, SLIDE	
C116	1-124-589-11	ELECT	47MF 20% 16V	*****			
C117	1-126-157-11	ELECT	10MF 20% 16V	*A-1270-248-A QD BOARD, COMPLETE (PVM-1442QM ONLY)			
C118	1-126-157-11	ELECT	10MF 20% 16V	*****			
C119	1-126-157-11	ELECT	10MF 20% 16V	<CAPACITOR>			
C120	1-124-589-11	ELECT	47ME 20% 16V	C121	1-126-094-11	ELECT	4.7MF 20% 25V
C122	1-124-589-11	ELECT	47MF 20% 16V	C124	1-101-004-00	CERAMIC	0.01MF 50V
C123	1-124-589-11	ELECT	47MF 20% 16V	C125	1-124-477-11	ELECT	47MF 20% 16V
<IC>				C126	1-124-589-11	ELECT	47MF 20% 16V
IC101	8-759-800-81	IC LA7016		C127	1-101-004-00	CERAMIC	0.01MF 50V
<TRANSISTOR>				C128	1-124-589-11	ELECT	47MF 20% 16V
Q122	8-729-119-78	TRANSISTOR 2SC2785-HFE		C129	1-124-589-11	ELECT	47MF 20% 16V
<RESISTOR>				C130	1-124-584-00	ELECT	100MF 20% 10V
R101	1-249-429-11	CARBON	10K 5% 1/4W	C131	1-161-021-11	CERAMIC	0.047MF 10% 25V
R102	1-249-405-11	CARBON	100 5% 1/4W	C132	1-102-963-00	CERAMIC	33PF 5% 50V
R103	1-249-429-11	CARBON	10K 5% 1/4W	C133	1-126-157-11	ELECT	10MF 20% 16V
R104	1-249-405-11	CARBON	100 5% 1/4W	C134	1-161-021-11	CERAMIC	0.047MF 10% 25V
R105	1-247-104-00	CARBON	75 5% 1/4W	C135	1-106-375-12	MYLAR	0.022MF 10% 100V
R106	1-249-405-11	CARBON	100 5% 1/4W	C136	1-101-004-00	CERAMIC	0.01MF 50V
R107	1-247-104-00	CARBON	75 5% 1/4W	C137	1-124-589-11	ELECT	47MF 20% 16V
				C138	1-124-589-11	ELECT	47MF 20% 16V
				C139	1-126-160-11	ELECT	1MF 20% 50V

QD

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C140	1-124-589-11	ELECT 47MF	20% 16V	R135	1-249-417-11	CARBON 1K 5%	1/4W
C141	1-102-965-00	CERAMIC 39PF	5% 50V	R136	1-249-411-11	CARBON 330 5%	1/4W
C142	1-102-965-00	CERAMIC 39PF	5% 50V	R137	1-249-418-11	CARBON 1.2K 5%	1/4W
C143	1-102-965-00	CERAMIC 39PF	5% 50V	R138	1-249-421-11	CARBON 2.2K 5%	1/4W
C144	1-126-094-11	ELECT 4.7MF	20% 25V	R139	1-249-424-11	CARBON 3.9K 5%	1/4W
C145	1-161-021-11	CERAMIC 0.047MF	10% 25V	R140	1-249-417-11	CARBON 1K 5%	1/4W
C146	1-124-589-11	ELECT 47MF	20% 16V	R141	1-249-425-11	CARBON 4.7K 5%	1/4W
C147	1-124-589-11	ELECT 47MF	20% 16V	R142	1-249-435-11	CARBON 33K 5%	1/4W
C148	1-126-157-11	ELECT 10MF	20% 16V	R143	1-249-435-11	CARBON 33K 5%	1/4W
C149	1-130-728-00	FILM 0.0022MF	10% 50V	R144	1-249-417-11	CARBON 1K 5%	1/4W
C150	1-130-483-00	MYLAR 0.01MF	5% 50V	R145	1-249-411-11	CARBON 330 5%	1/4W
C151	1-130-471-00	FILM 0.001MF	10% 50V	R146	1-249-417-11	CARBON 1K 5%	1/4W
C172	1-101-005-00	CERAMIC 0.022MF	5% 50V	R147	1-249-411-11	CARBON 330 5%	1/4W
C173	1-136-169-00	FILM 0.22MF	5% 50V	R148	1-249-429-11	CARBON 10K 5%	1/4W
C174	1-102-965-00	CERAMIC 39PF	5% 50V	R149	1-249-425-11	CARBON 4.7K 5%	1/4W
<DIODE>				R150	1-249-417-11	CARBON 1K 5%	1/4W
D102	8-719-110-03	DIODE RD7.5ES-B2		R151	1-249-429-11	CARBON 10K 5%	1/4W
D103	8-719-911-19	DIODE 1SS119		R152	1-249-429-11	CARBON 10K 5%	1/4W
D104	8-719-911-19	DIODE 1SS119		R153	1-249-405-11	CARBON 100 5%	1/4W
D105	8-719-911-19	DIODE 1SS119		R154	1-249-405-11	CARBON 100 5%	1/4W
D106	8-719-109-85	DIODE RD5.1ES-B2		R155	1-249-433-11	CARBON 22K 5%	1/4W
D107	8-719-109-85	DIODE RD5.1ES-B2		R156	1-249-433-11	CARBON 22K 5%	1/4W
D113	8-719-911-19	DIODE 1SS119		R157	1-249-430-11	CARBON 12K 5%	1/4W
D116	8-719-911-19	DIODE 1SS119		R158	1-249-417-11	CARBON 1K 5%	1/4W
<IC>				R159	1-247-706-11	CARBON 330 5%	1/4W
IC102	8-759-900-09	IC SN74LS09N		R160	1-247-706-11	CARBON 330 5%	1/4W
IC103	8-759-901-38	IC SN74LS138N		R161	1-247-706-11	CARBON 330 5%	1/4W
IC104	8-759-901-36	IC SN74LS136N		R162	1-249-426-11	CARBON 5.6K 5%	1/4W
IC105	8-759-900-11	IC SN74LS11N		R163	1-249-421-11	CARBON 2.2K 5%	1/4W
IC106	8-759-800-81	IC LA7016		R164	1-249-421-11	CARBON 2.2K 5%	1/4W
IC107	8-759-933-23	IC BA236		R165	1-249-425-11	CARBON 4.7K 5%	1/4W
<FILTER MODULE>				R166	1-249-425-11	CARBON 4.7K 5%	1/4W
LP101	1-235-988-11	FILTER MODULE, LOW PASS		R167	1-247-721-11	CARBON 4.7K 5%	1/4W
<TRANSISTOR>				R168	1-249-421-11	CARBON 2.2K 5%	1/4W
Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE		R169	1-249-433-11	CARBON 22K 5%	1/4W
Q102	8-729-119-78	TRANSISTOR 2SC2785-HFE		R170	1-249-437-11	CARBON 47K 5%	1/4W
Q103	8-729-119-78	TRANSISTOR 2SC2785-HFE		R171	1-247-725-11	CARBON 10K 5%	1/4W
Q104	8-729-119-78	TRANSISTOR 2SC2785-HFE		R172	1-249-405-11	CARBON 100 5%	1/4W
Q105	8-729-119-78	TRANSISTOR 2SC2785-HFE		R173	1-247-716-11	CARBON 1.8K 5%	1/4W
Q106	8-729-119-78	TRANSISTOR 2SC2785-HFE		R174	1-249-432-11	CARBON 18K 5%	1/4W
Q107	8-729-119-78	TRANSISTOR 2SC2785-HFE		R175	1-249-408-11	CARBON 180 5%	1/4W
Q108	8-729-119-78	TRANSISTOR 2SC2785-HFE		R176	1-249-437-11	CARBON 47K 5%	1/4W
Q109	8-729-119-78	TRANSISTOR 2SC2785-HFE		R178	1-249-418-11	CARBON 1.2K 5%	1/4W
Q110	8-729-900-36	TRANSISTOR DTC124ES		R179	1-247-713-11	CARBON 1K 5%	1/4W
Q111	8-729-900-89	TRANSISTOR DTC144ES		R220	1-249-429-11	CARBON 10K 5%	1/4W
Q112	8-729-119-78	TRANSISTOR 2SC2785-HFE		R221	1-249-437-11	CARBON 47K 5%	1/4W
Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE		R222	1-249-437-11	CARBON 47K 5%	1/4W
Q114	8-729-900-36	TRANSISTOR DTC124ES		R223	1-249-417-11	CARBON 1K 5%	1/4W
Q115	8-729-119-78	TRANSISTOR 2SC2785-HFE		R224	1-249-429-11	CARBON 10K 5%	1/4W
Q125	8-729-119-76	TRANSISTOR 2SA1175-HFE		R225	1-249-425-11	CARBON 4.7K 5%	1/4W
Q131	8-729-119-76	TRANSISTOR 2SA1175-HFE		R226	1-249-409-11	CARBON 220 5%	1/4W
Q132	8-729-119-76	TRANSISTOR 2SA1175-HFE		R231	1-249-432-11	CARBON 18K 5%	1/4W
Q135	8-729-900-65	TRANSISTOR DTA144ES		R235	1-249-425-11	CARBON 4.7K 5%	1/4W
<RESISTOR>				R236	1-249-417-11	CARBON 1K 5%	1/4W
				R237	1-249-420-11	CARBON 1.8K 5%	1/4W
				R241	1-249-408-11	CARBON 180 5%	1/4W
				R242	1-249-405-11	CARBON 100 5%	1/4W
				R244	1-249-405-11	CARBON 100 5%	1/4W
				R260	1-249-433-11	CARBON 22K 5%	1/4W
				R261	1-249-433-11	CARBON 22K 5%	1/4W
				R263	1-249-405-11	CARBON 100 5%	1/4W
				R299	1-249-420-11	CARBON 1.8K 5%	1/4W

QD

QE

QF

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<VARIABLE RESISTOR>				QE2	*1-564-516-11	PLUG, CONNECTOR 13P	
RV103	1-228-995-00	RES, ADJ, CARBON 22K		QE3	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)	
<SWITCH>				<RESISTOR>			
S102	1-553-977-41	SWITCH, SLIDE		R180	1-249-405-11	CARBON 100 5% 1/4W	
*****				R181	1-249-412-11	CARBON 390 5% 1/4W	
*A-1270-249-A QE BOARD, COMPLETE(PVM-1442QM ONLY)				R182	1-249-417-11	CARBON 1K 5% 1/4W	
*****				R183	1-249-436-11	CARBON 39K 5% 1/4W	
<CAPACITOR>				R184	1-249-435-11	CARBON 33K 5% 1/4W	
C152	1-101-004-00	CERAMIC 0.01MF 50V		R185	1-249-405-11	CARBON 100 5% 1/4W	
C154	1-123-875-11	ELECT 10MF 20% 50V		R186	1-249-433-11	CARBON 22K 5% 1/4W	
C155	1-124-499-11	ELECT 1MF 20% 50V		R187	1-249-433-11	CARBON 22K 5% 1/4W	
C156	1-124-499-11	ELECT 1MF 20% 50V		R188	1-249-405-11	CARBON 100 5% 1/4W	
C157	1-126-160-11	ELECT 1MF 20% 50V		R189	1-249-433-11	CARBON 22K 5% 1/4W	
C158	1-124-477-11	ELECT 47MF 20% 25V		R190	1-249-433-11	CARBON 22K 5% 1/4W	
C159	1-126-160-11	ELECT 1MF 20% 50V		R192	1-249-437-11	CARBON 47K 5% 1/4W	
C160	1-124-499-11	ELECT 1MF 20% 50V		R193	1-249-429-11	CARBON 10K 5% 1/4W	
C161	1-124-477-11	ELECT 47MF 20% 16V		R194	1-249-433-11	CARBON 22K 5% 1/4W	
C162	1-124-477-11	ELECT 47MF 20% 16V		R195	1-249-433-11	CARBON 22K 5% 1/4W	
C163	1-124-477-11	ELECT 47MF 20% 16V		R196	1-249-405-11	CARBON 100 5% 1/4W	
C164	1-161-021-11	CERAMIC 0.047MF 10% 25V		R197	1-249-421-11	CARBON 2.2K 5% 1/4W	
C165	1-124-477-11	ELECT 47MF 20% 16V		R198	1-249-421-11	CARBON 2.2K 5% 1/4W	
C166	1-124-477-11	ELECT 47MF 20% 16V		R199	1-249-441-11	CARBON 100K 5% 1/4W	
C167	1-124-477-11	ELECT 47MF 20% 16V		R200	1-249-435-11	CARBON 33K 5% 1/4W	
C168	1-124-589-11	ELECT 47MF 20% 16V		R201	1-249-428-11	CARBON 8.2K 5% 1/4W	
C169	1-161-021-11	CERAMIC 0.047MF 10% 25V		R202	1-249-417-11	CARBON 1K 5% 1/4W	
C170	1-124-477-11	ELECT 47MF 20% 25V		R203	1-249-429-11	CARBON 10K 5% 1/4W	
C171	1-124-925-11	ELECT 2.2MF 20% 50V		R204	1-249-428-11	CARBON 8.2K 5% 1/4W	
<DIODE>				R205	1-249-405-11	CARBON 100 5% 1/4W	
D108	8-719-911-19	DIODE 1SS119		R206	1-249-429-11	CARBON 10K 5% 1/4W	
D109	8-719-911-19	DIODE 1SS119		R207	1-249-429-11	CARBON 10K 5% 1/4W	
D110	8-719-911-19	DIODE 1SS119		R208	1-249-417-11	CARBON 1K 5% 1/4W	
D111	8-719-911-19	DIODE 1SS119		R209	1-249-405-11	CARBON 100 5% 1/4W	
D112	8-719-911-19	DIODE 1SS119		R210	1-249-433-11	CARBON 22K 5% 1/4W	
D114	8-719-911-19	DIODE 1SS119		R211	1-249-433-11	CARBON 22K 5% 1/4W	
D115	8-719-911-19	DIODE 1SS119		R212	1-249-433-11	CARBON 22K 5% 1/4W	
<IC>				R213	1-249-433-11	CARBON 22K 5% 1/4W	
IC108	8-759-800-81	IC LA7016		R215	1-249-405-11	CARBON 100 5% 1/4W	
IC109	8-759-800-81	IC LA7016		R216	1-249-411-11	CARBON 330 5% 1/4W	
IC110	8-759-800-81	IC LA7016		R217	1-249-433-11	CARBON 22K 5% 1/4W	
IC111	8-759-710-31	IC NJM2243S		R251	1-249-417-11	CARBON 1K 5% 1/4W	
<TRANSISTOR>				R252	1-249-417-11	CARBON 1K 5% 1/4W	
Q116	8-729-119-78	TRANSISTOR 2SC2785-HFE		R253	1-249-417-11	CARBON 1K 5% 1/4W	
Q117	8-729-119-78	TRANSISTOR 2SC2785-HFE		R265	1-249-415-11	CARBON 680 5% 1/4W	
Q118	8-729-119-76	TRANSISTOR 2SA1175-HFE		*****			
Q119	8-729-900-36	TRANSISTOR DTC124ES		*A-1270-266-A QF BOARD, COMPLETE (PVM-1440QM ONLY)			
Q120	8-729-119-78	TRANSISTOR 2SC2785-HFE		*****			
Q121	8-729-119-78	TRANSISTOR 2SC2785-HFE		1-537-210-11	TERMINAL BOARD		
Q127	8-729-900-65	TRANSISTOR DTA144ES		1-537-211-11	TERMINAL BOARD		
<CONNECTOR>				*4-379-104-01	INSULATOR, SLIDE SW		
QE1	*1-564-515-11	PLUG, CONNECTOR 12P		<CAPACITOR>			
				C101	1-124-589-11	ELECT 47MF 20% 16V	
				C102	1-126-160-11	ELECT 1MF 20% 50V	
				C103	1-126-160-11	ELECT 1MF 20% 50V	
				C105	1-161-021-11	CERAMIC 0.047MF 10% 25V	
				C106	1-126-160-11	ELECT 1MF 20% 50V	
				C107	1-126-160-11	ELECT 1MF 20% 50V	
				C108	1-124-589-11	ELECT 47MF 20% 16V	
				C109	1-124-589-11	ELECT 47MF 20% 16V	
				C110	1-126-160-11	ELECT 1MF 20% 50V	

QF

QG

REF.NO.	PART NO.	DESCRIPTION	REMARK
C111	1-124-589-11	ELECT 47MF	20% 16V
C112	1-126-160-11	ELECT 1MF	20% 50V
C113	1-124-589-11	ELECT 47MF	20% 16V
C114	1-161-021-11	CERAMIC 0.047MF	10% 25V
C116	1-124-589-11	ELECT 47MF	20% 16V
C117	1-124-589-11	ELECT 47MF	20% 16V
C118	1-124-589-11	ELECT 47MF	20% 16V
C119	1-126-160-11	ELECT 1MF	20% 50V
C120	1-126-160-11	ELECT 1MF	20% 50V
C121	1-126-160-11	ELECT 1MF	20% 50V
C122	1-124-589-11	ELECT 47MF	20% 16V
C123	1-124-589-11	ELECT 47MF	20% 16V
C124	1-124-589-11	ELECT 47MF	20% 16V
C125	1-102-959-00	CERAMIC 22PF	5% 50V
C126	1-126-160-11	ELECT 1MF	20% 50V
C127	1-126-157-11	ELECT 10MF	20% 16V
C128	1-126-157-11	ELECT 10MF	20% 16V
C129	1-126-157-11	ELECT 10MF	20% 16V
C130	1-102-965-00	CERAMIC 39PF	5% 50V
C131	1-126-157-11	ELECT 10MF	20% 16V
C132	1-102-947-00	CERAMIC 10PF	0.5PF 50V
C134	1-102-947-00	CERAMIC 10PF	0.5PF 50V
C135	1-102-947-00	CERAMIC 10PF	0.5PF 50V
C136	1-124-589-11	ELECT 47MF	20% 16V

<DIODE>

D101	8-719-110-08	DIODE RD8.2ES-B2
D102	8-719-110-08	DIODE RD8.2ES-B2

<IC>

IC101	8-759-710-31	IC NJM2243S
IC102	8-759-710-31	IC NJM2243S
IC103	8-759-800-81	IC LA7016

<COIL>

L101	1-410-478-11	INDUCTOR 47UH
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<TRANSISTOR>

Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE
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<CONNECTOR>

QF6	*1-560-721-21	PLUG, CONNECTOR 2P
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<RESISTOR>

R101	1-249-429-11	CARBON 10K 5%	1/4W
R104	1-249-429-11	CARBON 10K 5%	1/4W
R106	1-249-462-11	CARBON 22K 5%	1/4W
R107	1-249-433-11	CARBON 22K 5%	1/4W
R108	1-249-429-11	CARBON 10K 5%	1/4W
R109	1-247-104-00	CARBON 75 5%	1/4W
R112	1-247-104-00	CARBON 75 5%	1/4W
R114	1-249-405-11	CARBON 100 5%	1/4W
R115	1-249-433-11	CARBON 22K 5%	1/4W
R116	1-249-433-11	CARBON 22K 5%	1/4W
R117	1-247-104-00	CARBON 75 5%	1/4W
R118	1-247-104-00	CARBON 75 5%	1/4W
R119	1-249-429-11	CARBON 10K 5%	1/4W
R122	1-249-405-11	CARBON 100 5%	1/4W

REF.NO.	PART NO.	DESCRIPTION	REMARK
R123	1-249-433-11	CARBON 22K 5%	1/4W
R124	1-249-429-11	CARBON 10K 5%	1/4W
R125	1-249-429-11	CARBON 10K 5%	1/4W
R126	1-247-104-00	CARBON 75 5%	1/4W
R127	1-247-104-00	CARBON 75 5%	1/4W
R128	1-247-104-00	CARBON 75 5%	1/4W
R129	1-249-417-11	CARBON 1K 5%	1/4W
R130	1-247-104-00	CARBON 75 5%	1/4W
R131	1-247-804-11	CARBON 75 5%	1/4W
R132	1-247-704-11	CARBON 220 5%	1/4W
R133	1-247-704-11	CARBON 220 5%	1/4W
R134	1-249-429-11	CARBON 10K 5%	1/4W
R135	1-249-414-11	CARBON 560 5%	1/4W
R136	1-247-704-11	CARBON 220 5%	1/4W
R138	1-249-409-11	CARBON 220 5%	1/4W
R141	1-249-433-11	CARBON 22K 5%	1/4W
R142	1-249-429-11	CARBON 10K 5%	1/4W
R148	1-249-433-11	CARBON 22K 5%	1/4W
R149	1-249-433-11	CARBON 22K 5%	1/4W
R154	1-249-433-11	CARBON 22K 5%	1/4W
R155	1-249-433-11	CARBON 22K 5%	1/4W
R187	1-249-405-11	CARBON 100 5%	1/4W
R201	1-247-104-00	CARBON 75 5%	1/4W
R202	1-249-433-11	CARBON 22K 5%	1/4W
R206	1-249-419-11	CARBON 1.5K 5%	1/4W
R207	1-249-401-11	CARBON 47 5%	1/4W

<VARIABLE RESISTOR>

RV101	1-228-848-00	RES, VAR, CARBON 10K
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<SWITCH>

S101	1-570-145-11	SWITCH, SLIDE
S102	1-570-145-11	SWITCH, SLIDE

*A-1270-267-A QG BOARD, COMPLETE (PVM-1440QM ONLY)

<CAPACITOR>

C137	1-124-477-11	ELECT 47MF	20% 25V
C138	1-124-477-11	ELECT 47MF	20% 25V
C139	1-101-004-00	CERAMIC 0.01MF	50V
C140	1-123-875-11	ELECT 10MF	20% 50V
C142	1-124-477-11	ELECT 47MF	20% 25V
C143	1-124-477-11	ELECT 47MF	20% 16V
C144	1-124-477-11	ELECT 47MF	20% 25V
C145	1-124-477-11	ELECT 47MF	20% 25V
C146	1-123-875-11	ELECT 10MF	20% 50V
C147	1-124-477-11	ELECT 47MF	20% 25V
C148	1-123-875-11	ELECT 10MF	20% 50V
C149	1-124-499-11	ELECT 1MF	20% 50V
C150	1-123-875-11	ELECT 10MF	20% 50V
C152	1-124-471-00	ELECT 1000MF	20% 6.3V
C153	1-124-499-11	ELECT 1MF	20% 50V
C154	1-124-477-11	ELECT 47MF	20% 25V
C155	1-102-971-00	CERAMIC 82PF	5% 50V
C156	1-101-880-00	CERAMIC 47PF	5% 50V
C157	1-124-477-11	ELECT 47MF	20% 25V
C159	1-124-477-11	ELECT 47MF	20% 25V
C161	1-124-477-11	ELECT 47MF	20% 25V

QG

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C171	1-101-004-00	CERAMIC	0.01MF	R173	1-215-397-00	METAL	100 1% 1/6W
C172	1-124-120-11	ELECT	220MF 20% 25V	R174	1-215-399-00	METAL	120 1% 1/6W
<DIODE>				R175	1-215-397-00	METAL	100 1% 1/6W
D103	8-719-911-19	DIODE 1SS119		R176	1-215-865-11	METAL OXIDE	220 5% 1W F
D104	8-719-911-19	DIODE 1SS119		R177	1-247-695-11	CARBON	39 5% 1/4W
D106	8-719-911-19	DIODE 1SS119		R178	1-249-412-11	CARBON	390 5% 1/4W
D107	8-719-911-19	DIODE 1SS119		R179	1-249-435-11	CARBON	33K 5% 1/4W
D108	8-719-109-92	DIODE RD6.2ES-B1		R180	1-249-434-11	CARBON	27K 5% 1/4W
D109	8-719-110-30	DIODE RD12ES-B1		R181	1-249-414-11	CARBON	560 5% 1/4W
D111	8-719-911-19	DIODE 1SS119		R182	1-249-419-11	CARBON	1.5K 5% 1/4W
D112	8-719-911-19	DIODE 1SS119		R183	1-249-413-11	CARBON	470 5% 1/4W
D113	8-719-911-19	DIODE 1SS119		R184	1-249-413-11	CARBON	470 5% 1/4W
<IC>				R185	1-249-434-11	CARBON	27K 5% 1/4W
IC104	8-759-800-81	IC LA7016		R186	1-249-428-11	CARBON	8.2K 5% 1/4W
IC105	8-759-800-81	IC LA7016		R188	1-249-429-11	CARBON	10K 5% 1/4W
IC108	8-759-800-81	IC LA7016		R189	1-249-429-11	CARBON	10K 5% 1/4W
<COIL>				R190	1-249-429-11	CARBON	10K 5% 1/4W
L111	1-408-413-00	INDUCTOR	22UH	R191	1-249-417-11	CARBON	1K 5% 1/4W
<TRANSISTOR>				R192	1-249-433-11	CARBON	22K 5% 1/4W
Q101	8-729-900-36	TRANSISTOR DTC124ES		R193	1-249-433-11	CARBON	22K 5% 1/4W
Q102	8-729-119-78	TRANSISTOR 2SC2785-HFE		R198	1-215-413-00	METAL	470 1% 1/6W
Q103	8-729-119-78	TRANSISTOR 2SC2785-HFE		R199	1-215-413-00	METAL	470 1% 1/6W
Q105	8-729-177-42	TRANSISTOR 2SD774-3		R200	1-215-413-00	METAL	470 1% 1/6W
Q106	8-729-177-42	TRANSISTOR 2SD774-3		R203	1-249-433-11	CARBON	22K 5% 1/4W
Q107	8-729-119-76	TRANSISTOR 2SA1175-HFE		R204	1-249-434-11	CARBON	27K 5% 1/4W
Q108	8-729-119-78	TRANSISTOR 2SC2785-HFE		R205	1-249-415-11	CARBON	680 5% 1/4W
Q109	8-729-900-36	TRANSISTOR DTC124ES		*****			
Q111	8-729-900-36	TRANSISTOR DTC124ES		*A-1296-520-A A BOARD, COMPLETE			
Q112	8-729-900-65	TRANSISTOR DTA144ES		*****			
Q114	8-729-900-65	TRANSISTOR DTA144ES		*4-329-153-00 HEAT SINK, V OUT			
<RESISTOR>				*4-341-751-01 EYELET			
R120	1-249-417-11	CARBON	1K 5% 1/4W	*4-341-752-01 EYELET			
R121	1-249-405-11	CARBON	100 5% 1/4W	*4-363-404-00 HOLDER, IC			
R137	1-247-104-00	CARBON	75 5% 1/4W	4-363-414-00 SPACER, MICA			
R139	1-249-429-11	CARBON	10K 5% 1/4W	<CONNECTOR>			
R143	1-249-412-11	CARBON	390 5% 1/4W	A1	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P	
R144	1-249-405-11	CARBON	100 5% 1/4W	A2	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P	
R145	1-249-436-11	CARBON	39K 5% 1/4W	A3	*1-565-498-11	CONNECTOR, BOARD TO BOARD 7P	
R146	1-249-435-11	CARBON	33K 5% 1/4W	A4	*1-564-596-11	PLUG, CONNECTOR 15P	
R150	1-249-405-11	CARBON	100 5% 1/4W	A5	*1-564-596-11	PLUG, CONNECTOR 15P	
R151	1-249-433-11	CARBON	22K 5% 1/4W	A6	*1-565-497-11	CONNECTOR, BOARD TO BOARD 6P	
R152	1-249-433-11	CARBON	22K 5% 1/4W	A7	*1-565-498-11	CONNECTOR, BOARD TO BOARD 7P	
R153	1-249-405-11	CARBON	100 5% 1/4W	A8	*1-565-506-11	CONNECTOR, BOARD TO BOARD 15P	
R156	1-249-417-11	CARBON	1K 5% 1/4W	A9	*1-565-506-11	CONNECTOR, BOARD TO BOARD 15P	
R157	1-249-433-11	CARBON	22K 5% 1/4W	A10	*1-564-596-11	PLUG, CONNECTOR 15P	
R158	1-249-433-11	CARBON	22K 5% 1/4W	A11	*1-564-596-41	PLUG, CONNECTOR 15P	
R161	1-249-438-11	CARBON	56K 5% 1/4W	A13	*1-568-105-11	HOUSING, CONNECTOR 10P	
R162	1-249-405-11	CARBON	100 5% 1/4W	A14	*1-568-105-11	HOUSING, CONNECTOR 10P	
R163	1-249-417-11	CARBON	1K 5% 1/4W	A16	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P	
R164	1-249-435-11	CARBON	33K 5% 1/4W	A17	*1-565-496-11	CONNECTOR, BOARD TO BOARD 5P	
R165	1-249-405-11	CARBON	100 5% 1/4W	A18	*1-564-038-00	CONNECTOR PLUG, DY (MINI) 6P	
R166	1-249-433-11	CARBON	22K 5% 1/4W	A19	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P	
R167	1-249-433-11	CARBON	22K 5% 1/4W	A20	*1-564-507-11	PLUG, CONNECTOR 4P	
R172	1-249-405-11	CARBON	100 5% 1/4W	A22	*1-564-505-11	PLUG, CONNECTOR 2P	
<CAPACITOR>				<CAPACITOR>			
C300	1-123-875-11	ELECT	10MF 20% 50V	C300	1-123-875-11	ELECT	10MF 20% 50V
C301	1-124-477-11	ELECT	47MF 20% 25V	C301	1-124-477-11	ELECT	47MF 20% 25V
C302	1-101-884-00	CERAMIC	56PF 5% 50V	C302	1-101-884-00	CERAMIC	56PF 5% 50V
C303	1-136-173-00	FILM	0.47MF 5% 50V	C303	1-136-173-00	FILM	0.47MF 5% 50V

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The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C304	1-101-884-00	CERAMIC	56PF 5% 50V	C415	1-136-165-00	FILM	0.1MF 5% 50V
C305	1-136-173-00	FILM	0.47MF 5% 50V	C416	1-126-233-11	ELECT	22MF 20% 50V
C306	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C417	1-136-161-00	FILM	0.047MF 5% 50V
C307	1-124-477-11	ELECT	47MF 20% 25V	C418	1-136-153-00	FILM	0.01MF 5% 50V
C308	1-124-477-11	ELECT	47MF 20% 25V	C419	1-130-479-00	MYLAR	0.0047MF 5% 50V
C309	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C420	1-136-161-00	FILM	0.047MF 5% 50V
C310	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C421	1-136-153-00	FILM	0.01MF 5% 50V
C311	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C422	1-130-479-00	MYLAR	0.0047MF 5% 50V
C312	1-123-875-11	ELECT	10MF 20% 50V	C423	1-136-153-00	FILM	0.01MF 5% 50V
C313	1-102-074-00	CERAMIC	0.001MF 10% 50V	C424	1-130-479-00	MYLAR	0.0047MF 5% 50V
C314	1-102-074-00	CERAMIC	0.001MF 10% 50V	C425	1-124-478-11	ELECT	100MF 20% 25V
C315	1-124-927-11	ELECT	4.7MF 20% 50V	C426	1-136-161-00	FILM	0.047MF 5% 50V
C316	1-136-161-00	FILM	0.047MF 5% 50V	C427	1-124-478-11	ELECT	100MF 20% 25V
C317	1-136-161-00	FILM	0.047MF 5% 50V	C428	1-124-478-11	ELECT	100MF 20% 25V
C318	1-136-165-00	FILM	0.1MF 5% 50V	C430	1-101-888-00	CERAMIC	68PF 5% 50V
C319	1-101-004-00	CERAMIC	0.01MF 50V	C431	1-101-888-00	CERAMIC	68PF 5% 50V
C320	1-124-499-11	ELECT	1MF 20% 50V	C470	1-124-120-11	ELECT	220MF 20% 25V
C321	1-124-477-11	ELECT	47MF 20% 25V	C471	1-124-120-11	ELECT	220MF 20% 25V
C322	1-124-902-00	ELECT	0.47MF 20% 50V	C472	1-101-004-00	CERAMIC	0.01MF 50V
C323	1-101-361-00	CERAMIC	150PF 5% 50V	C473	1-124-478-11	ELECT	100MF 20% 25V
C324	1-124-477-11	ELECT	47MF 20% 25V	C474	1-101-004-00	CERAMIC	0.01MF 50V
C325	1-101-361-00	CERAMIC	150PF 5% 50V	C475	1-101-004-00	CERAMIC	0.01MF 50V
C326	1-124-477-11	ELECT	47MF 20% 25V	C476	1-101-888-00	CERAMIC	68PF 5% 50V
C327	1-124-477-11	ELECT	47MF 20% 25V	C477	1-101-006-00	CERAMIC	0.047MF 50V
C328	1-124-009-11	ELECT	47MF 20% 25V	C478	1-101-004-00	CERAMIC	0.01MF 50V
C329	1-124-477-11	ELECT	47MF 20% 25V	C479	1-124-478-11	ELECT	100MF 20% 25V
C330	1-101-880-00	CERAMIC	47PF 5% 50V	C480	1-101-004-00	CERAMIC	0.01MF 50V
C331	1-101-004-00	CERAMIC	0.01MF 50V	C481	1-101-004-00	CERAMIC	0.01MF 50V
C332	1-102-971-00	CERAMIC	82PF 5% 50V	C482	1-124-478-11	ELECT	100MF 20% 25V
C333	1-136-165-00	FILM	0.1MF 5% 50V	C483	1-124-120-11	ELECT	220MF 20% 25V
C334	1-136-173-00	FILM	0.47MF 5% 50V	C484	1-101-004-00	CERAMIC	0.01MF 50V
C335	1-136-173-00	FILM	0.47MF 5% 50V	C485	1-124-478-11	ELECT	100MF 20% 25V
C336	1-102-971-00	CERAMIC	82PF 5% 50V	C486	1-101-004-00	CERAMIC	0.01MF 50V
C337	1-124-477-11	ELECT	47MF 20% 25V	C487	1-101-004-00	CERAMIC	0.01MF 50V
C338	1-124-477-11	ELECT	47MF 20% 25V	C488	1-124-120-11	ELECT	220MF 20% 25V
C339	1-124-477-11	ELECT	47MF 20% 25V	C489	1-124-927-11	ELECT	4.7MF 20% 50V
C340	1-124-477-11	ELECT	47MF 20% 25V	C491	1-101-004-00	CERAMIC	0.01MF 50V
C341	1-124-477-11	ELECT	47MF 20% 25V	C492	1-124-120-11	ELECT	220MF 20% 25V
C342	1-124-477-11	ELECT	47MF 20% 25V	C493	1-101-004-00	CERAMIC	0.01MF 50V
C343	1-124-477-11	ELECT	47MF 20% 25V	C494	1-124-120-11	ELECT	220MF 20% 25V
C344	1-124-477-11	ELECT	47MF 20% 25V	C495	1-101-880-00	CERAMIC	47PF 5% 50V
C345	1-102-949-00	CERAMIC	12PF 5% 50V	C496	1-124-478-11	ELECT	100MF 20% 25V
C346	1-126-233-11	ELECT	22MF 20% 50V	C497	1-124-120-11	ELECT	220MF 20% 25V
C347	1-123-875-11	ELECT	10MF 20% 50V	C498	1-124-925-11	ELECT	2.2MF 20% 50V
C348	1-101-004-00	CERAMIC	0.01MF 50V	C500	1-101-884-00	CERAMIC	56PF 5% 50V
C349	1-124-120-11	ELECT	220MF 20% 25V	C501	1-124-120-11	ELECT	220MF 20% 25V
C350	1-101-884-00	CERAMIC	56PF 5% 50V	C502	1-124-927-11	ELECT	4.7MF 20% 50V
C351	1-102-106-00	CERAMIC	100PF 10% 50V	C503	1-124-927-11	ELECT	4.7MF 20% 50V
C352	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C504	1-102-114-00	CERAMIC	470PF 10% 50V
C353	1-161-021-11	CERAMIC	0.047MF 10% 25V	C505	1-123-875-11	ELECT	10MF 20% 50V
C401	1-136-153-00	FILM	0.01MF 5% 50V	C506	1-136-298-00	FILM	0.0033MF 5% 100V
C402	1-136-165-00	FILM	0.1MF 5% 50V	C507	1-106-351-00	MYLAR	0.0022MF 5% 100V
C403	1-136-165-00	FILM	0.1MF 5% 50V	C508	1-108-626-11	MYLAR	0.01MF 10% 100V
C404	1-136-169-00	FILM	0.22MF 5% 50V	C509	1-106-375-12	MYLAR	0.022MF 10% 100V
C405	1-136-169-00	FILM	0.22MF 5% 50V	C510	1-108-626-11	MYLAR	0.01MF 10% 100V
C406	1-136-169-00	FILM	0.22MF 5% 50V	C511	1-124-902-00	ELECT	0.47MF 20% 50V
C407	1-124-464-11	ELECT	0.22MF 20% 50V	C512	1-102-030-00	CERAMIC	330PF 10% 500V
C408	1-124-464-11	ELECT	0.22MF 20% 50V	C513	1-129-720-00	FILM	0.033MF 5% 630V
C409	1-124-464-11	ELECT	0.22MF 20% 50V	C514 Δ	1-136-078-11	FILM	0.0098MF 3% 2KV
C410	1-124-499-11	ELECT	1MF 20% 50V	C515 Δ	1-162-116-51	CERAMIC	680PF 10% 2KV
C411	1-124-499-11	ELECT	1MF 20% 50V	C516 Δ	1-162-116-51	CERAMIC	680PF 10% 2KV
C412	1-124-463-00	ELECT	0.1MF 20% 50V	C517	1-108-692-11	MYLAR	0.01MF 10% 200V
C413	1-124-463-00	ELECT	0.1MF 20% 50V	C518	1-126-104-11	ELECT	470MF 20% 35V
C414	1-136-165-00	FILM	0.1MF 5% 50V				

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C519	1-124-120-11	ELECT	220MF 20%	25V	C584	1-126-233-11	ELECT 22MF 20% 50V
C520	1-124-494-00	ELECT	33MF	160V	C585	1-102-110-00	CERAMIC 220PF 10% 50V
C521	1-102-212-00	CERAMIC	820PF 10%	500V	C590	1-126-233-11	ELECT 22MF 20% 50V
C522	1-102-212-00	CERAMIC	820PF 10%	500V	C591	1-124-925-11	ELECT 2.2MF 20% 50V
C523	1-162-114-00	CERAMIC	0.0047MF	2KV	C801	1-101-004-00	CERAMIC 0.01MF 50V
C524	1-108-700-11	MYLAR	0.047MF 10%	200V	C802	1-101-361-00	CERAMIC 150PF 5% 50V
C525	1-108-634-11	MYLAR	0.047MF 10%	100V	C803	1-102-976-00	CERAMIC 180PF 5% 50V
C526	1-124-477-11	ELECT	47MF 20%	25V	C804	1-126-233-11	ELECT 22MF 20% 50V
C527	1-124-902-00	ELECT	0.47MF 20%	50V	C805	1-102-125-00	CERAMIC 0.0047MF 10% 50V
C528	1-124-902-00	ELECT	0.47MF 20%	50V	C806	1-101-884-00	CERAMIC 56PF 5% 50V
C529	1-126-233-11	ELECT	22MF 20%	50V	C807	1-130-736-11	FILM 0.01MF 5% 50V
C530	1-123-875-11	ELECT	10MF 20%	50V	C808	1-124-120-11	ELECT 220MF 20% 25V
C531	1-131-351-00	TANTALUM	4.7MF 10%	35V	C809	1-101-004-00	CERAMIC 0.01MF 50V
C532	1-123-948-00	ELECT	22MF 20%	250V	C810	1-108-620-11	MYLAR 0.0033MF 10% 100V
C533	1-136-111-00	FILM	1MF 5%	200V	C811	1-124-927-11	ELECT 4.7MF 20% 50V
C534	1-106-399-00	MYLAR	0.22MF 10%	200V	C1001	1-124-478-11	ELECT 100MF 20% 25V
C535	1-123-946-00	ELECT	4.7MF 20%	250V	C1002	1-123-875-11	ELECT 10MF 20% 50V
C536	1-136-111-00	FILM	1MF 5%	200V	C1003	1-102-125-00	CERAMIC 0.0047MF 10% 50V
C537	1-102-002-00	CERAMIC	680PF 10%	500V	C1004	1-124-464-11	ELECT 0.22MF 20% 50V
C538	1-108-626-11	MYLAR	0.01MF 10%	100V	C1005	1-123-875-11	ELECT 10MF 20% 50V
C539	1-108-626-11	MYLAR	0.01MF 10%	100V	C1006	1-123-875-11	ELECT 10MF 20% 50V
C540	1-106-347-00	MYLAR	0.0015MF 10%	100V	C1007	1-108-634-11	MYLAR 0.047MF 10% 100V
C541	1-124-045-00	ELECT	4.7MF 20%	50V	C1008	1-124-478-11	ELECT 100MF 20% 25V
C542	1-123-875-11	ELECT	10MF 20%	50V	C1009	1-124-480-11	ELECT 470MF 20% 25V
C543	1-124-927-11	ELECT	4.7MF 20%	50V	C1010	1-124-478-11	ELECT 100MF 20% 25V
C544	1-124-190-00	ELECT	680MF 10%	25V	C1011	1-124-477-11	ELECT 47MF 20% 25V
C545	1-106-371-00	MYLAR	0.015MF 10%	200V	C1012	1-124-120-11	ELECT 220MF 20% 25V
C546	1-102-030-00	CERAMIC	330PF 10%	500V	C1013	1-124-478-11	ELECT 100MF 20% 25V
C547	1-124-342-00	ELECT	3.3MF 20%	160V	<DIODE>		
C548	1-102-030-00	CERAMIC	330PF 10%	500V	D302	8-719-911-19	DIODE 1SS119
C549	1-123-875-11	ELECT	10MF 20%	50V	D303	8-719-911-19	DIODE 1SS119
C550	1-102-244-00	CERAMIC	220PF 10%	500V	D304	8-719-911-19	DIODE 1SS119
C551	1-124-360-00	ELECT	1000MF 20%	16V	D305	8-719-911-19	DIODE 1SS119
C552	1-124-499-11	ELECT	1MF 20%	50V	D306	8-719-911-19	DIODE 1SS119
C553	1-108-626-11	MYLAR	0.01MF 10%	100V	D307	8-719-911-19	DIODE 1SS119
C554	1-124-499-11	ELECT	1MF 20%	50V	D308	8-719-911-19	DIODE 1SS119
C555	1-108-633-11	MYLAR	0.039MF 10%	100V	D309	8-719-911-19	DIODE 1SS119
C556	1-136-173-00	FILM	0.47MF 5%	50V	D311	8-719-911-19	DIODE 1SS119
C557	1-124-902-00	ELECT	0.47MF 20%	50V	D312	8-719-911-19	DIODE 1SS119
C558	1-131-356-00	TANTALUM	3.3MF 10%	25V	D313	8-719-911-19	DIODE 1SS119
C559	1-123-875-11	ELECT	10MF 20%	50V	D314	8-719-911-19	DIODE 1SS119
C560	1-136-161-00	FILM	0.047MF 5%	50V	D400	8-719-121-40	DIODE RD10ES-L3
C561	1-102-973-00	CERAMIC	100PF 5%	50V	D401	8-719-911-19	DIODE 1SS119
C562	1-130-471-00	FILM	0.001MF 5%	50V	D402	8-719-120-27	DIODE RD4.3ES-L2
C563	1-123-875-11	ELECT	10MF 20%	50V	D403	8-719-109-93	DIODE RD6.2ES-B2
C564	1-102-978-00	CERAMIC	220PF 5%	50V	D404	8-719-911-19	DIODE 1SS119
C565	1-124-478-11	ELECT	100MF 20%	25V	D405	8-719-911-19	DIODE 1SS119
C566	1-124-499-11	ELECT	1MF 20%	50V	D501	8-719-911-19	DIODE 1SS119
C567	1-123-875-11	ELECT	10MF 20%	50V	D502	8-719-971-20	DIODE ERC38-06
C568	1-108-614-11	MYLAR	0.001MF 10%	100V	D503	8-719-971-20	DIODE ERC38-06
C569	1-130-736-11	FILM	0.01MF 5%	50V	D504	8-719-901-58	DIODE RGP15J
C570	1-123-875-11	ELECT	10MF 20%	50V	D505	8-719-901-58	DIODE RGP15J
C571	1-126-233-11	ELECT	22MF 20%	25V	D506	8-719-901-19	DIODE V11N
C572	1-124-499-11	ELECT	1MF 20%	50V	D507	8-719-945-80	DIODE ERC06-15S
C573	1-123-875-11	ELECT	10MF 20%	50V	D508	8-719-928-08	DIODE ERD28-08S
C574	1-124-478-11	ELECT	100MF 20%	25V	D509	8-719-100-35	DIODE RD5.6E-B2
C575	1-102-978-00	CERAMIC	220PF 5%	50V	D510	8-719-190-00	DIODE RD24E-B27
C576	1-161-021-11	CERAMIC	0.047MF 10%	25V	D511	8-719-200-02	DIODE 10E2
C577	1-123-875-11	ELECT	10MF 20%	50V	D512	8-719-200-02	DIODE 10E2
C578	1-124-477-11	ELECT	47MF 20%	25V	D513	8-719-911-19	DIODE 1SS119
C579	1-124-477-11	ELECT	47MF 20%	25V	D514	8-719-300-76	DIODE RH-1Z
C580	1-124-499-11	ELECT	1MF 20%	50V			
C581	1-124-478-11	ELECT	100MF 20%	25V			
C583	1-126-233-11	ELECT	22MF 20%	50V			

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The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D515	8-719-300-76	DIODE RH-1Z		L503	1-410-666-31	INDUCTOR 18UH	
D516	8-719-200-02	DIODE 10E2		L504	1-407-365-00	COIL, CHOKE	
D517	8-719-911-19	DIODE 1SS119		L505	1-407-365-00	COIL, CHOKE	
D518	8-719-200-02	DIODE 10E2		L506	1-408-238-00	INDUCTOR 3.9MMH	
D519	8-719-911-19	DIODE 1SS119		L507	1-459-155-00	COIL (WITH CORE) 45UH	
D520	8-719-911-19	DIODE 1SS119		L508 Δ	1-459-496-12	COIL, FERRITE (HLC)	
D521	8-719-911-19	DIODE 1SS119		L509	1-459-106-00	COIL, DUST CORE	
D522	8-719-911-19	DIODE 1SS119		L510	1-459-075-00	COIL, DYNAMIC CONVERSION CHOKE	
D523	8-719-911-19	DIODE 1SS119		L511	1-459-059-00	COIL, DUST CORE	
D524	8-719-911-19	DIODE 1SS119		L512	1-408-247-00	INDUCTOR 33MMH	
D526	8-719-911-19	DIODE 1SS119		L513	1-459-104-00	COIL, DUST CORE	
D527	8-719-911-19	DIODE 1SS119		L514	1-410-686-11	INDUCTOR 1MMH	
D528	8-719-911-19	DIODE 1SS119		L515	1-410-510-11	INDUCTOR 12UH	
D529	8-719-911-19	DIODE 1SS119		L801	1-410-470-11	INDUCTOR 10UH	
D530	8-719-901-83	DIODE 1SS83		L802	1-410-089-21	INDUCTOR 15MMH	
D531	8-719-911-19	DIODE 1SS119		<NEON LAMP>			
D801	8-719-911-19	DIODE 1SS119		NL501	1-519-108-XX	LAMP, NEON	
D802	8-719-911-19	DIODE 1SS119		<TRANSISTOR>			
D1001	8-719-911-19	DIODE 1SS119		Q300	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D1002	8-719-911-19	DIODE 1SS119		Q301	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1003	8-719-911-19	DIODE 1SS119		Q302	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1010	8-719-120-64	DIODE RD5.6ES-L1		Q303	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1011	8-719-110-08	DIODE RD8.2ES-B2		Q304	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1012	8-719-911-55	DIODE U05G		Q305	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1013	8-719-110-37	DIODE RD13ES-B3		Q306	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1014	8-719-936-56	DIODE DAN209S		Q307	8-729-119-76	TRANSISTOR 2SA1175-HFE	
<DELAY LINE>				Q308	8-729-119-78	TRANSISTOR 2SC2785-HFE	
DL301	1-415-633-11	DELAY LINE, Y		Q309	8-729-119-78	TRANSISTOR 2SC2785-HFE	
<IC>				Q310	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC301	8-759-204-21	IC TA7193P		Q311	8-729-900-89	TRANSISTOR DTC144ES	
IC302	1-808-627-11	ACC BLOCK ACC-1		Q312	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC303	8-759-710-31	IC NJM2243S		Q313	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC304	1-235-534-11	CONTROL MODULE, PICTURE		Q314	8-729-900-65	TRANSISTOR DTA144ES	
IC305	8-749-920-72	IC BX-7573		Q315	8-729-900-89	TRANSISTOR DTC144ES	
IC306	8-759-420-08	IC AN5613		Q316	8-729-900-89	TRANSISTOR DTC144ES	
IC307	1-808-629-11	MODULE, BLUE ONLY BOM-1		Q317	8-729-900-89	TRANSISTOR DTC144ES	
IC308	1-808-626-11	MODULE, GAIN/BIAS GBM-1		Q318	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC309	8-759-240-52	IC TC4052BP		Q319	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC311	8-759-800-81	IC LA7016		Q320	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC312	8-759-800-81	IC LA7016		Q321	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC401	8-752-030-31	IC CXA1024S		Q322	8-729-900-89	TRANSISTOR DTC144ES	
IC501	8-759-100-60	IC UPC1377C		Q323	8-729-900-89	TRANSISTOR DTC144ES	
IC502	8-759-145-58	IC UPC4558C		Q324	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC503	8-749-920-74	IC BX7574		Q325	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC504	8-759-345-38	IC HD14538BP		Q326	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC505	8-759-700-06	IC NJM7812B		Q327	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC1001	8-759-420-04	IC AN5265		Q328	8-729-119-76	TRANSISTOR 2SA1175-HFE	
<COIL>				Q329	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L300	1-410-470-11	INDUCTOR 10UH		Q330	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L301	1-410-470-11	INDUCTOR 10UH		Q331	8-729-119-76	TRANSISTOR 2SA1175-HFE	
L302	1-410-470-11	INDUCTOR 10UH		Q332	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L303	1-410-471-11	INDUCTOR 12UH		Q333	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L304	1-408-406-00	INDUCTOR 5.6UH		Q334	8-729-119-76	TRANSISTOR 2SA1175-HFE	
L306	1-410-470-11	INDUCTOR 10UH		Q335	8-729-119-76	TRANSISTOR 2SA1175-HFE	
L307	1-408-406-00	INDUCTOR 5.6UH		Q336	8-729-119-76	TRANSISTOR 2SA1175-HFE	
L495	1-421-013-00	COIL, (HORIZONTAL CHOKE) 25UH		Q337	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L501	1-459-155-00	COIL (WITH CORE) 45UH		Q338	8-729-900-89	TRANSISTOR DTC144ES	
L502	1-410-671-31	INDUCTOR 47UH		Q400	8-729-177-33	TRANSISTOR 2SD773-4	
				Q401	8-729-900-36	TRANSISTOR DTC124ES	

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q402	8-729-900-36	TRANSISTOR DTC124ES		<RESISTOR>			
Q403	8-729-119-76	TRANSISTOR 2SA1175-HFE		R300	1-249-405-11	CARBON 100 5% 1/4W	
Q404	8-729-119-78	TRANSISTOR 2SC2785-HFE		R301	1-249-405-11	CARBON 100 5% 1/4W	
Q405	8-729-119-78	TRANSISTOR 2SC2785-HFE		R302	1-247-721-11	CARBON 4.7K 5% 1/4W	
Q406	8-729-119-78	TRANSISTOR 2SC2785-HFE		R303	1-249-426-11	CARBON 5.6K 5% 1/4W	
Q407	8-729-119-78	TRANSISTOR 2SC2785-HFE		R304	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q408	8-729-119-78	TRANSISTOR 2SC2785-HFE		R305	1-249-429-11	CARBON 10K 5% 1/4W	
Q409	8-729-119-78	TRANSISTOR 2SC2785-HFE		R306	1-249-405-11	CARBON 100 5% 1/4W	
Q410	8-729-900-89	TRANSISTOR DTC144ES		R307	1-247-887-00	CARBON 220K 5% 1/4W	
Q411	8-729-900-89	TRANSISTOR DTC144ES		R308	1-249-429-11	CARBON 10K 5% 1/4W	
Q412	8-729-119-76	TRANSISTOR 2SA1175-HFE		R309	1-249-405-11	CARBON 100 5% 1/4W	
Q413	8-729-119-78	TRANSISTOR 2SC2785-HFE		R310	1-247-887-00	CARBON 220K 5% 1/4W	
Q414	8-729-119-78	TRANSISTOR 2SC2785-HFE		R311	1-249-435-11	CARBON 33K 5% 1/4W	
Q415	8-729-900-36	TRANSISTOR DTC124ES		R312	1-249-431-11	CARBON 15K 5% 1/4W	
Q416	8-729-900-36	TRANSISTOR DTC124ES		R313	1-249-405-11	CARBON 100 5% 1/4W	
Q501	8-729-800-35	TRANSISTOR 2SD1397-CA		R314	1-249-405-11	CARBON 100 5% 1/4W	
Q502	8-729-119-80	TRANSISTOR 2SC2688-K		R315	1-249-413-11	CARBON 470 5% 1/4W	
Q503	8-729-119-78	TRANSISTOR 2SC2785-HFE		R316	1-249-413-11	CARBON 470 5% 1/4W	
Q504	8-729-119-76	TRANSISTOR 2SA1175-HFE		R317	1-249-414-11	CARBON 560 5% 1/4W	
Q505	8-729-309-08	TRANSISTOR 2SC1890A		R318	1-249-422-11	CARBON 2.7K 5% 1/4W	
Q506	8-729-119-78	TRANSISTOR 2SC2785-HFE		R319	1-249-416-11	CARBON 820 5% 1/4W	
Q507	8-729-313-42	TRANSISTOR 2SD1134-C		R320	1-249-415-11	CARBON 680 5% 1/4W	
Q508	8-729-119-78	TRANSISTOR 2SC2785-HFE		R321	1-249-411-11	CARBON 330 5% 1/4W	
Q509	8-729-195-82	TRANSISTOR 2SC2958-L		R322	1-249-409-11	CARBON 220 5% 1/4W	
Q510	8-729-122-03	TRANSISTOR 2SA1220A-Q		R323	1-249-409-11	CARBON 220 5% 1/4W	
Q511	8-729-169-02	TRANSISTOR 2SC2690A-Q		R324	1-249-417-11	CARBON 1K 5% 1/4W	
Q512	8-729-119-76	TRANSISTOR 2SA1175-HFE		R325	1-249-405-11	CARBON 100 5% 1/4W	
Q513	8-729-900-63	TRANSISTOR DTA124ES		R326	1-249-409-11	CARBON 220 5% 1/4W	
Q514	8-729-900-36	TRANSISTOR DTC124ES		R327	1-249-417-11	CARBON 1K 5% 1/4W	
Q515	8-729-900-36	TRANSISTOR DTC124ES		R328	1-249-434-11	CARBON 27K 5% 1/4W	
Q516	8-729-119-76	TRANSISTOR 2SA1175-HFE		R329	1-249-433-11	CARBON 22K 5% 1/4W	
Q517	8-729-119-78	TRANSISTOR 2SC2785-HFE		R330	1-249-433-11	CARBON 22K 5% 1/4W	
Q518	8-729-119-78	TRANSISTOR 2SC2785-HFE		R331	1-249-433-11	CARBON 22K 5% 1/4W	
Q519	8-729-900-36	TRANSISTOR DTC124ES		R332	1-249-405-11	CARBON 100 5% 1/4W	
Q520	8-729-900-63	TRANSISTOR DTA124ES		R333	1-249-435-11	CARBON 33K 5% 1/4W	
Q521	8-729-119-78	TRANSISTOR 2SC2785-HFE		R334	1-249-432-11	CARBON 18K 5% 1/4W	
Q522	8-729-119-78	TRANSISTOR 2SC2785-HFE		R335	1-247-700-11	CARBON 100 5% 1/4W	
Q523	8-729-900-36	TRANSISTOR DTC124ES		R336	1-249-417-11	CARBON 1K 5% 1/4W	
Q524	8-729-900-63	TRANSISTOR DTA124ES		R337	1-249-410-11	CARBON 270 5% 1/4W	
Q525	8-729-900-36	TRANSISTOR DTC124ES		R338	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q526	8-729-119-76	TRANSISTOR 2SA1175-HFE		R339	1-249-405-11	CARBON 100 5% 1/4W	
Q528	8-729-119-78	TRANSISTOR 2SC2785-HFE		R340	1-249-434-11	CARBON 27K 5% 1/4W	
Q529	8-729-119-78	TRANSISTOR 2SC2785-HFE		R341	1-249-434-11	CARBON 27K 5% 1/4W	
Q530	8-729-119-78	TRANSISTOR 2SC2785-HFE		R342	1-249-418-11	CARBON 1.2K 5% 1/4W	
Q531	8-729-119-78	TRANSISTOR 2SC2785-HFE		R343	1-249-440-11	CARBON 82K 5% 1/4W	
Q532	8-729-119-76	TRANSISTOR 2SA1175-HFE		R344	1-249-428-11	CARBON 8.2K 5% 1/4W	
Q533	8-729-119-76	TRANSISTOR 2SA1175-HFE		R345	1-249-416-11	CARBON 820 5% 1/4W	
Q534	8-729-119-76	TRANSISTOR 2SA1175-HFE		R346	1-249-416-11	CARBON 820 5% 1/4W	
Q550	8-729-119-78	TRANSISTOR 2SC2785-HFE		R347	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q551	8-729-119-78	TRANSISTOR 2SC2785-HFE		R348	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q801	8-729-119-78	TRANSISTOR 2SC2785-HFE		R349	1-249-417-11	CARBON 1K 5% 1/4W	
Q802	8-729-119-76	TRANSISTOR 2SA1175-HFE		R350	1-249-425-11	CARBON 4.7K 5% 1/4W	
Q803	8-729-119-78	TRANSISTOR 2SC2785-HFE		R351	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE		R352	1-247-891-00	CARBON 330K 5% 1/4W	
Q805	8-729-119-76	TRANSISTOR 2SA1175-HFE		R353	1-249-428-11	CARBON 8.2K 5% 1/4W	
Q806	8-729-900-36	TRANSISTOR DTC124ES		R354	1-249-424-11	CARBON 3.9K 5% 1/4W	
Q807	8-729-119-78	TRANSISTOR 2SC2785-HFE		R355	1-249-434-11	CARBON 27K 5% 1/4W	
Q1001	8-729-119-76	TRANSISTOR 2SA1175-HFE		R356	1-249-437-11	CARBON 47K 5% 1/4W	
Q1002	8-729-119-76	TRANSISTOR 2SA1175-HFE		R357	1-249-437-11	CARBON 47K 5% 1/4W	
Q1003	8-729-177-42	TRANSISTOR 2SD774-3		R358	1-249-437-11	CARBON 22K 5% 1/4W	
Q1004	8-729-177-42	TRANSISTOR 2SD774-3		R359	1-249-417-11	CARBON 1K 5% 1/4W	
Q1005	8-729-122-03	TRANSISTOR 2SA1220A-P		R360	1-249-413-11	CARBON 470 5% 1/4W	
Q1006	8-729-119-78	TRANSISTOR 2SC2785-HFE					

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R361	1-249-405-11	CARBON	100 5% 1/4W	R425	1-249-437-11	CARBON	47K 5% 1/4W
R362	1-249-410-11	CARBON	270 5% 1/4W	R426	1-249-434-11	CARBON	27K 5% 1/4W
R363	1-249-432-11	CARBON	18K 5% 1/4W	R427	1-249-429-11	CARBON	10K 5% 1/4W
R364	1-249-417-11	CARBON	1K 5% 1/4W	R428	1-249-425-11	CARBON	4.7K 5% 1/4W
R365	1-249-432-11	CARBON	18K 5% 1/4W	R429	1-249-405-11	CARBON	100 5% 1/4W
R366	1-249-437-11	CARBON	47K 5% 1/4W	R430	1-247-711-11	CARBON	680 5% 1/4W
R367	1-249-413-11	CARBON	470 5% 1/4W	R431	1-249-416-11	CARBON	820 5% 1/4W
R368	1-249-405-11	CARBON	100 5% 1/4W	R432	1-249-414-11	CARBON	560 5% 1/4W
R369	1-249-405-11	CARBON	100 5% 1/4W	R433	1-249-433-11	CARBON	22K 5% 1/4W
R370	1-249-417-11	CARBON	1K 5% 1/4W	R434	1-249-425-11	CARBON	4.7K 5% 1/4W
R371	1-249-432-11	CARBON	18K 5% 1/4W	R435	1-249-405-11	CARBON	100 5% 1/4W
R372	1-249-465-11	CARBON	47K 5% 1/4W	R436	1-249-423-11	CARBON	3.3K 5% 1/4W
R373	1-249-436-11	CARBON	39K 5% 1/4W	R437	1-249-411-11	CARBON	330 5% 1/4W
R374	1-249-432-11	CARBON	18K 5% 1/4W	R438	1-249-405-11	CARBON	100 5% 1/4W
R375	1-249-405-11	CARBON	100 5% 1/4W	R439	1-249-417-11	CARBON	1K 5% 1/4W
R376	1-249-417-11	CARBON	1K 5% 1/4W	R440	1-249-425-11	CARBON	4.7K 5% 1/4W
R377	1-249-428-11	CARBON	8.2K 5% 1/4W	R441	1-249-421-11	CARBON	2.2K 5% 1/4W
R378	1-249-433-11	CARBON	22K 5% 1/4W	R442	1-247-700-11	CARBON	100 5% 1/4W
R379	1-249-430-11	CARBON	12K 5% 1/4W	R443	1-249-421-11	CARBON	2.2K 5% 1/4W
R380	1-249-405-11	CARBON	100 5% 1/4W	R444	1-249-419-11	CARBON	1.5K 5% 1/4W
R381	1-249-431-11	CARBON	15K 5% 1/4W	R445	1-249-417-11	CARBON	1K 5% 1/4W
R382	1-249-408-11	CARBON	180 5% 1/4W	R446	1-249-422-11	CARBON	2.7K 5% 1/4W
R383	1-249-413-11	CARBON	470 5% 1/4W	R447	1-249-429-11	CARBON	10K 5% 1/4W
R384	1-249-413-11	CARBON	470 5% 1/4W	R448	1-247-883-00	CARBON	150K 5% 1/4W
R385	1-249-411-11	CARBON	330 5% 1/4W	R449	1-249-462-11	CARBON	22K 5% 1/4W
R386	1-249-415-11	CARBON	680 5% 1/4W	R450	1-249-409-11	CARBON	220 5% 1/4W
R387	1-249-405-11	CARBON	100 5% 1/4W	R451	1-247-704-11	CARBON	220 5% 1/4W
R388	1-249-423-11	CARBON	3.3K 5% 1/4W	R452	1-249-409-11	CARBON	220 5% 1/4W
R389	1-249-417-11	CARBON	1K 5% 1/4W	R453	1-247-704-11	CARBON	220 5% 1/4W
R390	1-249-433-11	CARBON	22K 5% 1/4W	R454	1-249-417-11	CARBON	1K 5% 1/4W
R391	1-249-433-11	CARBON	22K 5% 1/4W	R455	1-249-409-11	CARBON	220 5% 1/4W
R392	1-249-433-11	CARBON	22K 5% 1/4W	R456	1-249-409-11	CARBON	220 5% 1/4W
R393	1-249-403-11	CARBON	68 5% 1/4W	R457	1-249-409-11	CARBON	220 5% 1/4W
R394	1-249-409-11	CARBON	220 5% 1/4W	R458	1-249-433-11	CARBON	22K 5% 1/4W
R395	1-249-417-11	CARBON	1K 5% 1/4W	R459	1-249-425-11	CARBON	4.7K 5% 1/4W
R396	1-249-433-11	CARBON	22K 5% 1/4W	R460	1-249-425-11	CARBON	4.7K 5% 1/4W
R397	1-249-405-11	CARBON	100 5% 1/4W	R461	1-249-433-11	CARBON	22K 5% 1/4W
R398	1-249-405-11	CARBON	100 5% 1/4W	R462	1-249-386-11	CARBON	2.7 5% 1/4W
R399	1-247-718-11	CARBON	2.7K 5% 1/4W	R464	1-259-881-11	CARBON	2.7M 5% 1/4W
R400	1-249-413-11	CARBON	470 5% 1/4W	R465	1-249-465-11	CARBON	47K 5% 1/4W
R401	1-249-413-11	CARBON	470 5% 1/4W	R466	1-249-421-11	CARBON	2.2K 5% 1/4W
R402	1-249-416-11	CARBON	820 5% 1/4W	R467	1-249-431-11	CARBON	15K 5% 1/4W
R403	1-249-411-11	CARBON	330 5% 1/4W	R468	1-249-431-11	CARBON	15K 5% 1/4W
R404	1-249-405-11	CARBON	100 5% 1/4W	R469	1-247-897-11	CARBON	560K 5% 1/4W
R405	1-249-422-11	CARBON	2.7K 5% 1/4W	R470	1-249-437-11	CARBON	47K 5% 1/4W
R406	1-249-413-11	CARBON	470 5% 1/4W	R471	1-249-429-11	CARBON	10K 5% 1/4W
R407	1-249-413-11	CARBON	470 5% 1/4W	R472	1-249-417-11	CARBON	1K 5% 1/4W
R408	1-249-416-11	CARBON	820 5% 1/4W				
R409	1-249-411-11	CARBON	330 5% 1/4W				
R410	1-249-405-11	CARBON	100 5% 1/4W				
R411	1-249-422-11	CARBON	2.7K 5% 1/4W				
R412	1-249-419-11	CARBON	1.5K 5% 1/4W				
R413	1-249-417-11	CARBON	1K 5% 1/4W				
R414	1-249-429-11	CARBON	10K 5% 1/4W				
R415	1-249-417-11	CARBON	1K 5% 1/4W				
R416	1-249-429-11	CARBON	10K 5% 1/4W				
R417	1-249-421-11	CARBON	2.2K 5% 1/4W				
R418	1-249-439-11	CARBON	68K 5% 1/4W				
R419	1-249-433-11	CARBON	22K 5% 1/4W				
R420	1-249-426-11	CARBON	5.6K 5% 1/4W				
R421	1-249-437-11	CARBON	47K 5% 1/4W				
R422	1-249-437-11	CARBON	47K 5% 1/4W				
R423	1-249-405-11	CARBON	100 5% 1/4W				
R424	1-249-437-11	CARBON	47K 5% 1/4W				

* : Selected to yield optimum performance.



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R473	1-249-437-11	CARBON	47K 5% 1/4W	R521	1-215-445-00	METAL	10K 1% 1/6W
R474	1-249-429-11	CARBON	10K 5% 1/4W	R522	1-247-887-00	CARBON	220K 5% 1/4W
R475	1-249-417-11	CARBON	1K 5% 1/4W	R523	1-215-439-00	METAL	5.6K 1% 1/6W
R476	1-249-401-11	CARBON	47 5% 1/4W	R524	1-249-469-11	CARBON	100K 5% 1/4W
R477	1-249-417-11	CARBON	1K 5% 1/4W	R525	1-215-445-00	METAL	10K 1% 1/6W
R478	1-249-401-11	CARBON	47 5% 1/4W	R526	1-215-442-00	METAL	7.5K 1% 1/6W
R479	1-249-417-11	CARBON	1K 5% 1/4W	R527	1-249-417-11	CARBON	1K 5% 1/4W
R480	1-249-401-11	CARBON	47 5% 1/4W	R528	1-215-877-11	METAL OXIDE	22K 5% 1W F
R481	1-249-433-11	CARBON	22K 5% 1/4W	R529	1-216-360-11	METAL OXIDE	8.2 5% 1W F
R482	1-249-433-11	CARBON	22K 5% 1/4W	R530	1-216-427-00	METAL OXIDE	120 5% 1W F
R483	1-249-433-11	CARBON	22K 5% 1/4W	R531	1-247-756-11	CARBON	2.2K 5% 1/2W F
R484	1-247-891-00	CARBON	330K 5% 1/4W	R532	1-249-436-11	CARBON	39K 5% 1/4W
R485	1-247-891-00	CARBON	330K 5% 1/4W	R533	1-249-422-11	CARBON	2.7K 5% 1/4W
R486	1-249-433-11	CARBON	22K 5% 1/4W	R534	1-247-719-11	CARBON	3.3K 5% 1/4W
R487	1-249-433-11	CARBON	22K 5% 1/4W	R535	1-215-441-00	METAL	6.8K 1% 1/6W
R488	1-249-418-11	CARBON	1.2K 5% 1/4W F	R536	1-249-433-11	CARBON	22K 5% 1/4W
R489	1-249-421-11	CARBON	2.2K 5% 1/4W	R537	1-249-417-11	CARBON	1K 5% 1/4W F
R490	1-247-895-00	CARBON	470K 5% 1/4W	R538	1-249-428-11	CARBON	8.2K 5% 1/4W
R491	1-249-420-11	CARBON	1.8K 5% 1/4W	R539	1-247-883-00	CARBON	150K 5% 1/4W
R492	1-249-417-11	CARBON	1K 5% 1/4W	R540	1-249-466-11	CARBON	56K 5% 1/4W
R493	1-249-441-11	CARBON	100K 5% 1/4W	R541	1-247-883-00	CARBON	150K 5% 1/4W
R494	1-249-413-11	CARBON	470 5% 1/4W	R542	1-249-438-11	CARBON	56K 5% 1/4W
R495	1-249-433-11	CARBON	22K 5% 1/4W	R543	1-247-903-00	CARBON	1M 5% 1/4W
R496	1-249-433-11	CARBON	22K 5% 1/4W	R544	1-215-453-00	METAL	22K 1% 1/6W
R497	1-249-437-11	CARBON	47K 5% 1/4W	R545	1-249-417-11	CARBON	1K 5% 1/4W
R498	1-249-433-11	CARBON	22K 5% 1/4W	R546	1-249-411-11	CARBON	330 5% 1/4W
R499	1-249-433-11	CARBON	22K 5% 1/4W	R547	1-249-414-11	CARBON	560 5% 1/4W
*R500	1-215-451-00	METAL	18K 1% 1/6W	R548	1-249-415-11	CARBON	680 5% 1/4W
*R500	1-215-452-00	METAL	20K 1% 1/6W	R549	1-215-473-00	METAL	150K 1% 1/6W
*R500	1-215-453-00	METAL	22K 1% 1/6W	R550	1-249-433-11	CARBON	22K 5% 1/4W
*R500	1-215-454-00	METAL	24K 1% 1/6W	R551	1-247-688-11	CARBON	10 5% 1/4W F
*R500	1-215-455-00	METAL	27K 1% 1/6W	R552	1-249-425-11	CARBON	4.7K 5% 1/4W
*R500	1-215-456-00	METAL	30K 1% 1/6W	R553	1-249-429-11	CARBON	10K 5% 1/4W
*R500	1-215-457-00	METAL	33K 1% 1/6W	R554	1-249-460-11	CARBON	15K 5% 1/4W
*R500	1-215-458-00	METAL	36K 1% 1/6W	R555	1-249-426-11	CARBON	5.6K 5% 1/4W
*R500	1-215-459-00	METAL	39K 1% 1/6W	R556	1-247-707-11	CARBON	390 5% 1/4W
*R500	1-215-460-00	METAL	43K 1% 1/6W	R557	1-215-463-00	METAL	56K 1% 1/6W
*R500	1-215-461-00	METAL	47K 1% 1/6W	R558	1-215-457-00	METAL	33K 1% 1/6W
*R500	1-215-462-00	METAL	51K 1% 1/6W	R559	1-215-453-00	METAL	22K 1% 1/6W
*R500	1-215-463-00	METAL	56K 1% 1/6W	R560	1-215-479-00	METAL	270K 1% 1/6W
*R500	1-215-464-00	METAL	62K 1% 1/6W	R561	1-249-435-11	CARBON	33K 5% 1/4W
*R500	1-215-465-00	METAL	68K 1% 1/6W	R562	1-249-422-11	CARBON	2.7K 5% 1/4W
*R500	1-215-466-00	METAL	75K 1% 1/6W	R563	1-249-428-11	CARBON	8.2K 5% 1/4W
*R500	1-215-467-00	METAL	82K 1% 1/6W	R564	1-215-445-00	METAL	10K 1% 1/6W
*R501	1-247-711-11	CARBON	680 5% 1/4W F	R565	1-249-413-11	CARBON	470 5% 1/4W F
R502	1-216-464-11	METAL OXIDE	18K 5% 2W F	R566	1-216-350-11	METAL OXIDE	1.2 5% 1W F
R503	1-249-440-11	CARBON	82K 5% 1/4W	R567	1-216-350-11	METAL OXIDE	1.2 5% 1W F
R504	1-249-424-11	CARBON	3.9K 5% 1/4W	R568	1-249-401-11	CARBON	47 5% 1/4W F
R505	1-249-440-11	CARBON	82K 5% 1/4W	R569	1-215-869-11	METAL OXIDE	1K 5% 1W F
R506	1-249-431-11	CARBON	15K 5% 1/4W	R570	1-247-697-11	CARBON	56 5% 1/4W F
R507	1-249-434-11	CARBON	27K 5% 1/4W	R571	1-215-867-00	METAL OXIDE	470 5% 1W F
R508	1-247-723-11	CARBON	6.8K 5% 1/4W F	R572	1-216-355-11	METAL OXIDE	3.3 5% 1W F
R509	1-249-423-11	CARBON	3.3K 5% 1/4W F	R573	1-247-746-11	CARBON	390 5% 1/2W
R510	1-215-919-11	METAL OXIDE	2.2K 5% 3W F	R574	1-249-425-11	CARBON	4.7K 5% 1/4W
R511	1-215-447-00	METAL	12K 1% 1/6W	R575	1-247-688-11	CARBON	10 5% 1/4W F
R512	1-212-883-00	FUSIBLE	120 5% 1/4W F	R576	1-249-440-11	CARBON	82K 5% 1/4W
R513	1-249-383-11	CARBON	1.5 5% 1/4W F	R577	1-249-396-11	CARBON	18 5% 1/4W
R514	1-216-367-11	METAL OXIDE	0.68 5% 2W F	R578	1-249-433-11	CARBON	22K 5% 1/4W
R515	1-216-434-11	METAL OXIDE	1.8K 5% 1W F	R579	1-249-433-11	CARBON	22K 5% 1/4W
R516	1-214-888-00	METAL	10K 1% 1/2W	R580	1-249-433-11	CARBON	22K 5% 1/4W
R517	1-214-763-00	METAL	27K 1% 1/4W	R581	1-249-429-11	CARBON	10K 5% 1/4W
R518	1-214-956-00	METAL	470K 1% 1/4W	R582	1-249-429-11	CARBON	10K 5% 1/4W
R519	1-214-917-00	METAL	150K 1% 1/2W	R583	1-249-438-11	CARBON	56K 5% 1/4W
R520	1-215-467-00	METAL	82K 1% 1/6W				

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R584	1-247-881-00	CARBON	120K 5% 1/4W	R851	1-249-439-11	CARBON	68K 5% 1/4W
R585	1-249-433-11	CARBON	22K 5% 1/4W	R852	1-249-437-11	CARBON	47K 5% 1/4W
R586	1-215-449-00	METAL	15K 1% 1/6W	R853	1-247-710-11	CARBON	560 5% 1/4W
R587	1-249-429-11	CARBON	10K 5% 1/4W	R855	1-249-414-11	CARBON	560 5% 1/4W
R588	1-247-688-11	CARBON	10 5% 1/4W F	R856	1-249-429-11	CARBON	10K 5% 1/4W
R589	1-249-417-11	CARBON	1K 5% 1/4W	R857	1-247-725-11	CARBON	10K 5% 1/4W
R590	1-249-433-11	CARBON	22K 5% 1/4W	R858	1-249-433-11	CARBON	22K 5% 1/4W
R591	1-249-433-11	CARBON	22K 5% 1/4W	R860	1-249-425-11	CARBON	4.7K 5% 1/4W
R592	1-249-417-11	CARBON	1K 5% 1/4W	R861	1-249-437-11	CARBON	47K 5% 1/4W
R593	1-249-425-11	CARBON	4.7K 5% 1/4W	R862	1-249-425-11	CARBON	4.7K 5% 1/4W
R594	1-247-719-11	CARBON	3.3K 5% 1/4W	R863	1-247-721-11	CARBON	4.7K 5% 1/4W
R595	1-249-417-11	CARBON	1K 5% 1/4W	R864	1-247-717-11	CARBON	2.2K 5% 1/4W
R596	1-247-721-11	CARBON	4.7K 5% 1/4W F	R866	1-249-426-11	CARBON	5.6K 5% 1/4W
R597	1-215-437-00	METAL	4.7K 1% 1/6W	R867	1-249-426-11	CARBON	5.6K 5% 1/4W
R598	1-247-725-11	CARBON	10K 5% 1/4W	R868	1-249-421-11	CARBON	2.2K 5% 1/4W
R599	1-247-711-11	CARBON	680 5% 1/4W F	R869	1-249-425-11	CARBON	4.7K 5% 1/4W
R800	1-215-443-00	METAL	8.2K 1% 1/6W	R870	1-249-426-11	CARBON	5.6K 5% 1/4W
R801	1-249-440-11	CARBON	82K 5% 1/4W	R871	1-249-427-11	CARBON	6.8K 5% 1/4W
R802	1-215-429-00	METAL	2.2K 1% 1/6W	R872	1-249-417-11	CARBON	1K 5% 1/4W
R803	1-249-465-11	CARBON	47K 5% 1/4W	R873	1-249-437-11	CARBON	47K 5% 1/4W
R804	1-247-726-11	CARBON	33K 5% 1/4W F	R874	1-215-437-00	METAL	4.7K 1% 1/6W
R805	1-249-407-11	CARBON	150 5% 1/4W	R875	1-215-453-00	METAL	22K 1% 1/6W
R806	1-249-415-11	CARBON	680 5% 1/4W	R876	1-249-429-11	CARBON	10K 5% 1/4W
R807	1-249-437-11	CARBON	47K 5% 1/4W	R877	1-249-417-11	CARBON	1K 5% 1/4W
R808	1-249-433-11	CARBON	22K 5% 1/4W	R878	1-249-429-11	CARBON	10K 5% 1/4W
R809	1-215-471-00	METAL	120K 1% 1/6W	R879	1-249-437-11	CARBON	47K 5% 1/4W
R810	1-215-467-00	METAL	82K 1% 1/6W	R880	1-249-417-11	CARBON	1K 5% 1/4W
R811	1-249-429-11	CARBON	10K 5% 1/4W	R881	1-249-423-11	CARBON	3.3K 5% 1/4W
R812	1-249-427-11	CARBON	6.8K 5% 1/4W	R883	1-249-409-11	CARBON	220 5% 1/4W
R813	1-249-405-11	CARBON	100 5% 1/4W	R884	1-249-417-11	CARBON	1K 5% 1/4W
R814	1-249-417-11	CARBON	1K 5% 1/4W	R885	1-249-469-11	CARBON	100K 5% 1/4W
R815	1-249-409-11	CARBON	220 5% 1/4W	R886	1-247-725-11	CARBON	10K 5% 1/4W
R816	1-249-429-11	CARBON	10K 5% 1/4W	R887	1-247-704-11	CARBON	220 5% 1/4W
R817	1-247-881-00	CARBON	120K 5% 1/4W	R1001	1-247-717-11	CARBON	2.2K 5% 1/4W
R818	1-247-881-00	CARBON	120K 5% 1/4W	R1002	1-249-429-11	CARBON	10K 5% 1/4W
R819	1-247-903-00	CARBON	1M 5% 1/4W	R1003	1-249-405-11	CARBON	100 5% 1/4W
R820	1-249-426-11	CARBON	5.6K 5% 1/4W	R1004	1-247-725-11	CARBON	10K 5% 1/4W
R821	1-247-881-00	CARBON	120K 5% 1/4W	R1005	1-249-437-11	CARBON	47K 5% 1/4W
R822	1-249-417-11	CARBON	1K 5% 1/4W	R1006	1-249-439-11	CARBON	68K 5% 1/4W
R823	1-247-696-11	CARBON	47 5% 1/4W F	R1007	1-249-433-11	CARBON	22K 5% 1/4W
R824	1-249-439-11	CARBON	68K 5% 1/4W	R1009	1-249-429-11	CARBON	10K 5% 1/4W
R825	1-249-437-11	CARBON	47K 5% 1/4W	R1010	1-249-415-11	CARBON	680 5% 1/4W
R826	1-249-417-11	CARBON	1K 5% 1/4W	R1011	1-249-455-11	CARBON	4.7 5% 1/4W
R827	1-249-417-11	CARBON	1K 5% 1/4W	R1012	1-216-355-11	METAL OXIDE	3.3 5% 1W F
R828	1-249-417-11	CARBON	1K 5% 1/4W	R1013	1-249-413-11	CARBON	470 5% 1/4W
R829	1-249-421-11	CARBON	2.2K 5% 1/4W	R1014	1-249-414-11	CARBON	560 5% 1/4W
R830	1-249-435-11	CARBON	33K 5% 1/4W	R1015	1-215-867-00	METAL OXIDE	470 5% 1W F
R831	1-249-438-11	CARBON	56K 5% 1/4W	R1016	1-247-698-11	CARBON	68 5% 1/4W
R832	1-249-417-11	CARBON	1K 5% 1/4W	R1017	1-249-421-11	CARBON	2.2K 5% 1/4W
R833	1-249-425-11	CARBON	4.7K 5% 1/4W	R1018	1-249-437-11	CARBON	47K 5% 1/4W
R834	1-249-425-11	CARBON	4.7K 5% 1/4W	R1019	1-212-857-00	FUSIBLE	10 5% 1/4W F
R835	1-247-889-00	CARBON	270K 5% 1/4W	R1020	1-249-429-11	CARBON	10K 5% 1/4W
R836	1-247-897-11	CARBON	560K 5% 1/4W	R1021	1-249-434-11	CARBON	27K 5% 1/4W
R837	1-215-469-00	METAL	100K 1% 1/6W	R1022	1-249-428-11	CARBON	8.2K 5% 1/4W
R838	1-246-531-00	CARBON	270K 5% 1/4W	R1023	1-249-428-11	CARBON	8.2K 5% 1/4W
R840	1-247-696-11	CARBON	47 5% 1/4W	R1024	1-247-903-00	CARBON	1M 5% 1/4W
R842	1-249-409-11	CARBON	220 5% 1/4W	R1025	1-249-429-11	CARBON	10K 5% 1/4W
R843	1-247-704-11	CARBON	220 5% 1/4W	R1026	1-249-429-11	CARBON	10K 5% 1/4W
R844	1-249-417-11	CARBON	1K 5% 1/4W	R1027	1-215-454-00	METAL	24K 1% 1/6W
R845	1-247-725-11	CARBON	10K 5% 1/4W	R1301	1-249-429-11	CARBON	10K 5% 1/4W
R846	1-215-439-00	METAL	5.6K 1% 1/6W	R1302	1-247-725-11	CARBON	10K 5% 1/4W
R847	1-249-433-11	CARBON	22K 5% 1/4W	R1303	1-249-429-11	CARBON	10K 5% 1/4W
R848	1-249-433-11	CARBON	22K 5% 1/4W	R1304	1-249-405-11	CARBON	100 5% 1/4W
R850	1-249-440-11	CARBON	82K 5% 1/4W				

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

PVM-1440QM/1442QM/1444QM

A

C

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R1306	1-247-700-11	CARBON 100 5% 1/4W		C717	1-162-116-00	CERAMIC 680PF 10% 2KV	
R1307	1-249-421-11	CARBON 2.2K 5% 1/4W		C718	1-162-115-00	CERAMIC 330PF 10% 2KV	
<VARIABLE RESISTOR>				C720	1-162-116-00	CERAMIC 680PF 10% 2KV	
RV002	1-228-993-00	RES, ADJ, CARBON 4.7K		C721	1-162-116-00	CERAMIC 680PF 10% 2KV	
RV003	1-228-993-00	RES, ADJ, CARBON 4.7K		C722	1-162-116-00	CERAMIC 680PF 10% 2KV	
RV004	1-228-993-00	RES, ADJ, CARBON 4.7K		<DIODE>			
RV005	1-228-996-00	RES, ADJ, CARBON 47K		D701	8-719-911-19	DIODE 1SS119	
RV006	1-228-994-00	RES, ADJ, CARBON 10K		D702	8-719-911-19	DIODE 1SS119	
RV007	1-228-994-00	RES, ADJ, CARBON 10K		D703	8-719-911-19	DIODE 1SS119	
RV401	1-228-994-00	RES, ADJ, CARBON 10K		D704	8-719-911-19	DIODE 1SS119	
RV501	1-228-993-00	RES, ADJ, METAL GLAZE 4.7K		D705	8-719-911-19	DIODE 1SS119	
RV502	1-223-102-00	RES, ADJ, WIREWOUND 120		D706	8-719-911-19	DIODE 1SS119	
RV503	1-228-996-00	RES, ADJ, METAL GLAZE 47K		D707	8-719-901-83	DIODE 1SS83	
RV504	1-228-990-00	RES, ADJ, CARBON 1K		D708	8-719-901-83	DIODE 1SS83	
RV505	1-228-995-00	RES, ADJ, CARBON 22K		D709	8-719-901-83	DIODE 1SS83	
RV506	1-228-989-00	RES, ADJ, CARBON 470		D713	8-719-901-83	DIODE 1SS83	
RV507	1-224-250-XX	RES, ADJ, METAL GLAZE 2.2K		D715	8-719-901-83	DIODE 1SS83	
RV508	1-228-994-00	RES, ADJ, CARBON 10K		D716	8-719-901-83	DIODE 1SS83	
RV509	1-228-998-00	RES, ADJ, CARBON 220K		D717	8-719-901-83	DIODE 1SS83	
RV510	1-228-996-00	RES, ADJ, CARBON 47K		<FILTER>			
RV511	1-228-989-00	RES, ADJ, CARBON 470		FL701	1-236-058-11	ENCAPSULATED COMPONENT	
RV512	1-228-995-00	RES, ADJ, CARBON 22K		FL702	1-236-058-11	ENCAPSULATED COMPONENT	
RV513	1-228-993-00	RES, ADJ, METAL GLAZE 4.7K		FL703	1-236-058-11	ENCAPSULATED COMPONENT	
RV514	1-228-996-00	RES, ADJ, CARBON 47K		<TRANSISTOR>			
RV550	1-228-993-00	RES, ADJ, CARBON 4.7K		Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
<TRANSFORMER>				Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
T501	Δ 1-439-395-12	TRANSFORMER ASSY, FLYBACK		Q703	8-729-119-78	TRANSISTOR 2SC2785-HFE	
T502	1-437-131-00	TRANSFORMER, DRIVE		Q704	8-729-200-17	TRANSISTOR 2SA1091	
<THERMISTOR>				Q705	8-729-200-17	TRANSISTOR 2SA1091	
TH501	1-806-110-00	THERMISTOR		Q706	8-729-200-17	TRANSISTOR 2SA1091	
*****				Q707	8-729-326-11	TRANSISTOR 2SC2611	
*****				Q708	8-729-326-11	TRANSISTOR 2SC2611	
*****				Q709	8-729-326-11	TRANSISTOR 2SC2611	
*****				Q710	8-729-200-17	TRANSISTOR 2SA1091	
*****				Q711	8-729-200-17	TRANSISTOR 2SA1091	
*****				Q712	8-729-200-17	TRANSISTOR 2SA1091	
*****				Q713	8-729-255-12	TRANSISTOR 2SC2551	
*****				Q714	8-729-255-12	TRANSISTOR 2SC2551	
*****				Q715	8-729-255-12	TRANSISTOR 2SC2551	
*****				Q716	8-729-255-12	TRANSISTOR 2SC2551	
*****				Q717	8-729-255-12	TRANSISTOR 2SC2551	
*****				<RESISTOR>			
*****				R702	1-215-480-00	METAL 300K 1% 1/6W	
*****				R704	1-215-408-00	METAL 300 1% 1/6W	
*****				R705	1-249-410-11	CARBON 270 5% 1/4W	
*****				R706	1-249-410-11	CARBON 270 5% 1/4W	
*****				R707	1-249-420-11	CARBON 1.8K 5% 1/4W	
*****				R708	1-249-419-11	CARBON 1.5K 5% 1/4W	
*****				R709	1-249-420-11	CARBON 1.8K 5% 1/4W	
*****				R710	1-249-397-11	CARBON 22 5% 1/4W	
*****				R711	1-249-397-11	CARBON 22 5% 1/4W	
*****				R712	1-249-397-11	CARBON 22 5% 1/4W	
*****				R715	1-202-818-00	SOLID 1K 10% 1/2W	
*****				R716	1-216-486-00	METAL OXIDE 8.2K 5% 3W F	
*****				R717	1-202-818-00	SOLID 1K 10% 1/2W	
*****				R718	1-216-486-00	METAL OXIDE 8.2K 5% 3W F	

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R719	1-202-818-00	SOLID					
R720	1-216-486-00	METAL OXIDE					
R721	1-216-372-11	METAL OXIDE					
R722	1-202-848-00	SOLID					
R723	1-202-838-00	SOLID					
R724	1-202-842-11	SOLID					
R725	1-202-719-00	SOLID					
R731	1-249-409-11	CARBON					
R732	1-249-409-11	CARBON					
R733	1-249-409-11	CARBON					
R734	1-249-409-11	CARBON					
R735	1-249-409-11	CARBON					
R736	1-249-409-11	CARBON					
R737	1-249-405-11	CARBON					
R738	1-249-405-11	CARBON					
R739	1-249-405-11	CARBON					
R740	1-249-429-11	CARBON					
R741	1-249-429-11	CARBON					
R742	1-249-429-11	CARBON					
R743	1-249-441-11	CARBON					
R744	1-249-429-11	CARBON					
R745	1-249-429-11	CARBON					
R746	1-215-902-11	METAL OXIDE					
R747	1-247-725-11	CARBON					
R748	1-247-713-11	CARBON					
R749	1-215-902-11	METAL OXIDE					
R750	1-249-400-11	CARBON					
R751	1-247-887-00	CARBON					
R752	1-247-887-00	CARBON					
R753	1-247-887-00	CARBON					
<VARIABLE RESISTOR>							
RV707	1-230-641-11	RES. ADJ. METAL GLAZE 2.2M					
RV708	1-230-798-11	RES. ADJ. METAL GLAZE 90M					
RV709	1-230-641-11	RES. ADJ. METAL GLAZE 2.2M					

*1-629-148-11	V BOARD						

<CAPACITOR>							
C1700	1-124-120-11	ELECT					
C1701	1-101-004-00	CERAMIC					
C1702	1-102-978-00	CERAMIC					
C1703	1-102-978-00	CERAMIC					
C1705	1-124-499-11	ELECT					
C1706	1-124-499-11	ELECT					
C1707	1-124-120-11	ELECT					
C1710	1-101-884-00	CERAMIC					
C1711	1-101-884-00	CERAMIC					
<DIODE>							
D1700	8-719-911-19	DIODE 1SS119					
D1701	8-719-936-56	DIODE DAN209S					
D1702	8-719-936-56	DIODE DAN209S					
D1703	8-719-936-56	DIODE DAN209S					
D1704	8-719-936-56	DIODE DAN209S					
D1705	8-719-933-28	DIODE DAP209S					
D1706	8-719-933-28	DIODE DAP209S					
D1707	8-719-911-19	DIODE 1SS119					
D1708	8-719-911-19	DIODE 1SS119					

For Service Manuals
MAURITRON SERVICES
8 Cherry Tree Road, Chinnor
Oxfordshire, OX9 4QY.
Tel (01844) 351694
Fax (01844) 352554
email:- mauritron@diat.pipex.com

V

W

Y

J

XA

REF. NO.	PART NO.	DESCRIPTION	REMARK
RV1707	1-237-524-21	RES. ADJ. CARBON 1M	
RV1708	1-228-995-00	RES. ADJ. CARBON 22K	
RV1709	1-228-995-00	RES. ADJ. CARBON 22K	
RV1710	1-228-995-00	RES. ADJ. CARBON 22K	

<CONNECTOR>

V1	*1-563-720-11	SOCKET, CONNECTOR (PC BOARD)9P
V2	*1-563-720-11	SOCKET, CONNECTOR (PC BOARD)9P

*1-629-149-11 W BOARD

<CAPACITOR>

C1400	1-136-169-00	FILM	0.22MF	5%	50V
C1401	1-136-153-00	FILM	0.01MF	5%	50V
C1402	1-124-478-11	ELECT	100MF	20%	25V
C1403	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1404	1-124-478-11	ELECT	100MF	20%	25V
C1405	1-123-875-11	ELECT	10MF	20%	50V
C1406	1-124-902-00	ELECT	0.47MF	20%	50V

<DIODE>

D1400	8-719-911-19	DIODE 1SS119
D1401	8-719-911-19	DIODE 1SS119

<IC>

IC1400	8-759-135-80	IC UPC358C
--------	--------------	------------

<TRANSISTOR>

Q1400	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1401	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q1402	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1403	8-729-119-78	TRANSISTOR 2SC2785-HFE

<RESISTOR>

R1400	1-249-437-11	CARBON	47K	5%	1/4W
R1401	1-249-415-11	CARBON	680	5%	1/4W
R1402	1-247-895-00	CARBON	470K	5%	1/4W
R1403	1-247-903-00	CARBON	1M	5%	1/4W
R1404	1-249-438-11	CARBON	56K	5%	1/4W
R1405	1-249-433-11	CARBON	22K	5%	1/4W
R1406	1-249-411-11	CARBON	330	5%	1/4W
R1407	1-249-433-11	CARBON	22K	5%	1/4W
R1408	1-249-411-11	CARBON	330	5%	1/4W
R1409	1-249-429-11	CARBON	10K	5%	1/4W
R1410	1-249-409-11	CARBON	220	5%	1/4W
R1411	1-249-426-11	CARBON	5.6K	5%	1/4W
R1412	1-249-411-11	CARBON	330	5%	1/4W
R1413	1-247-883-00	CARBON	150K	5%	1/4W
R1414	1-249-429-11	CARBON	10K	5%	1/4W
R1416	1-249-429-11	CARBON	10K	5%	1/4W
R1417	1-249-433-11	CARBON	22K	5%	1/4W
R1418	1-249-439-11	CARBON	68K	5%	1/4W
R1419	1-249-440-11	CARBON	82K	5%	1/4W
R1420	1-249-441-11	CARBON	100K	5%	1/4W

<CONNECTOR>

REF. NO.	PART NO.	DESCRIPTION	REMARK
W1	*1-565-482-11	CONNECTOR, BOARD TO BOARD 6P	
W2	*1-564-506-11	PLUG, CONNECTOR 3P	

*1-629-150-11 Y BOARD

<CAPACITOR>

C1500	1-124-499-11	ELECT	1MF	20%	50V
C1501	1-102-125-00	CERAMIC	0.0047MF	10%	50V

<IC>

IC1500	8-759-909-70	IC CX23025
--------	--------------	------------

<TRANSISTOR>

Q1500	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1501	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1502	8-729-900-63	TRANSISTOR DTA124ES

<RESISTOR>

R1500	1-249-437-11	CARBON	47K	5%	1/4W
R1501	1-249-437-11	CARBON	47K	5%	1/4W
R1502	1-249-437-11	CARBON	47K	5%	1/4W F
R1503	1-249-429-11	CARBON	10K	5%	1/4W
R1504	1-249-437-11	CARBON	47K	5%	1/4W
R1505	1-249-437-11	CARBON	47K	5%	1/4W

<CONNECTOR>

Y1	*1-565-481-11	CONNECTOR, BOARD TO BOARD 5P
----	---------------	------------------------------

*1-629-153-11 J BOARD

<CONNECTOR>

J1	*1-568-106-11	PIN, CONNECTOR 7P
----	---------------	-------------------

*1-629-151-11 XA BOARD

<CAPACITOR>

C1300	1-101-005-00	CERAMIC	0.022MF		50V
C1301	1-101-888-00	CERAMIC	68PF	5%	50V
C1302	1-101-884-00	CERAMIC	56PF	5%	50V
C1303	1-102-942-00	CERAMIC	5PF	1PF	50V
C1304	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C1305	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C1306	1-102-951-00	CERAMIC	15PF	5%	50V
C1307	1-102-951-00	CERAMIC	15PF	5%	50V
C1308	1-124-478-11	ELECT	100MF	20%	25V
C1309	1-102-125-00	CERAMIC	0.0047MF	10%	50V

XA

U

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<TRIMMER>							
CV3	1-141-337-11	CAP. VAR. TRIMMER		Q1601	8-729-119-78	TRANSISTOR 2SC2785-HFE	
CV4	1-141-337-11	CAP. VAR. TRIMMER		Q1602	8-729-119-78	TRANSISTOR 2SC2785-HFE	
<COIL>				<RESISTOR>			
L1300	1-408-429-00	INDUCTOR	470UH	R1600	1-247-897-11	CARBON	560K 5% 1/4W
L1301	1-408-429-00	INDUCTOR	470UH	R1601	1-249-415-11	CARBON	680 5% 1/4W
L1302	1-408-429-00	INDUCTOR	470UH	R1602	1-249-413-11	CARBON	470 5% 1/4W
L1303	1-408-429-00	INDUCTOR	470UH	R1603	1-249-403-11	CARBON	68 5% 1/4W
<TRANSISTOR>				R1604	1-249-428-11	CARBON	8.2K 5% 1/4W
Q1300	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1605	1-249-415-11	CARBON	680 5% 1/4W
Q1301	8-729-900-89	TRANSISTOR DTC144ES		R1606	1-249-413-11	CARBON	470 5% 1/4W
Q1302	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1607	1-249-428-11	CARBON	8.2K 5% 1/4W
Q1303	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1608	1-247-895-00	CARBON	470K 5% 1/4W
Q1304	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1609	1-247-897-11	CARBON	560K 5% 1/4W
Q1305	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1610	1-249-437-11	CARBON	47K 5% 1/4W
<RESISTOR>				<CONNECTOR>			
R1301	1-249-413-11	CARBON	470 5% 1/4W	U1	*1-565-483-11	CONNECTOR, BOARD TO BOARD 7P	
R1302	1-249-415-11	CARBON	680 5% 1/4W	*****			
R1303	1-249-415-11	CARBON	680 5% 1/4W	MISCELLANEOUS			
R1304	1-249-427-11	CARBON	6.8K 5% 1/4W	*****			
R1305	1-249-413-11	CARBON	470 5% 1/4W	1-544-063-11	SPEAKER		
R1306	1-249-413-11	CARBON	470 5% 1/4W	Δ 1-237-614-12	RESISTOR ASSY, HIGH-VOLTAGE		
R1308	1-249-417-11	CARBON	1K 5% 1/4W	Δ 1-426-145-13	COIL, DEGAUSSING		
R1310	1-249-441-11	CARBON	100K 5% 1/4W	S901 Δ 1-554-967-12	SWITCH, PUSH (AC POWER) (1 KEY)		
R1311	1-249-441-11	CARBON	100K 5% 1/4W	Δ 1-451-329-11	DEFLECTION YOKE (Y14FZA)		
R1312	1-249-441-11	CARBON	100K 5% 1/4W	1-452-032-00	MAGNET, DISK; 10MM ϕ		
R1313	1-249-441-11	CARBON	100K 5% 1/4W	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ		
R1320	1-249-429-11	CARBON	10K 5% 1/4W	1-452-277-00	MAGNET, BMC		
R1321	1-249-429-11	CARBON	10K 5% 1/4W	1-466-076-11	CONTROL UNIT (PVM-1442QM ONLY)		
R1322	1-249-429-11	CARBON	10K 5% 1/4W	1-466-075-11	CONTROL UNIT (PVM-1444QM ONLY)		
R1323	1-249-429-11	CARBON	10K 5% 1/4W	1-466-113-11	CONTROL UNIT (PVM-1440QM ONLY)		
<CRYSTAL>				1-543-604-11	CORE, RING		
X358	1-567-505-11	OSCILLATOR, CRYSTAL		Δ 1-574-389-12	CORD. POWER (WITH CONNECTOR)		
X443	1-567-504-11	OSCILLATOR, CRYSTAL		V901 Δ 8-734-621-05	PICTURE TUBE (M34KBE21X)		
<CONNECTOR>					(PVM-1442QM/1444QM ONLY)		
XA1	*1-565-483-11	CONNECTOR, BOARD TO BOARD 7P		V901 Δ 8-736-254-05	PICTURE TUBE (A34JHS10X)		
*****					(PVM-1440QM ONLY)		
*1-629-219-11	U BOARD (PVM-1440QM ONLY)			*****			
*****				ACCESSORIES AND PACKING MATERIALS			
<CAPACITOR>				*****			
C1600	1-124-477-11	ELECT	47MF 20% 25V	PART NO.	DESCRIPTION	REMARK	
C1601	1-124-478-11	ELECT	100MF 20% 25V	3-786-761-11	MANUAL, INSTRUCTION		
C1602	1-124-902-00	ELECT	0.47MF 20% 50V	*4-312-246-00	BAG, PROTECTION		
C1603	1-124-499-11	ELECT	1MF 20% 50V	*4-391-866-01	CUSHION (UPPER) (ASSY)		
<IC>				*4-391-867-01	CUSHION (LOWER) (ASSY)		
IC1600	8-759-913-11	IC CX20125		*4-391-897-01	INDIVIDUAL CARTON (PVM-1444QM ONLY)		
<TRANSISTOR>				*4-391-899-01	INDIVIDUAL CARTON (PVM-1440QM ONLY)		
Q1600	8-729-119-76	TRANSISTOR 2SA1175-HFE		*4-393-301-01	INDIVIDUAL CARTON (PVM-1442QM ONLY)		

PVM-1440QM/1442QM/1444QM

SONY[®] SERVICE MANUAL

SUPPLEMENT-1

File this Supplement with the Service Manual.

AEP Model

PVM-1440QM

Serial No. 2,002,901 and later

Chassis No. SCC-C57A-A

PVM-1442QM

Serial No. 2,003,251 and later

Chassis No. SCC-C56A-A

PVM-1444QM

Serial No. 2,001,601 and later

Chassis No. SCC-C55A-A

INTRODUCTION

A and W boards modification

 : Indicate modification portion



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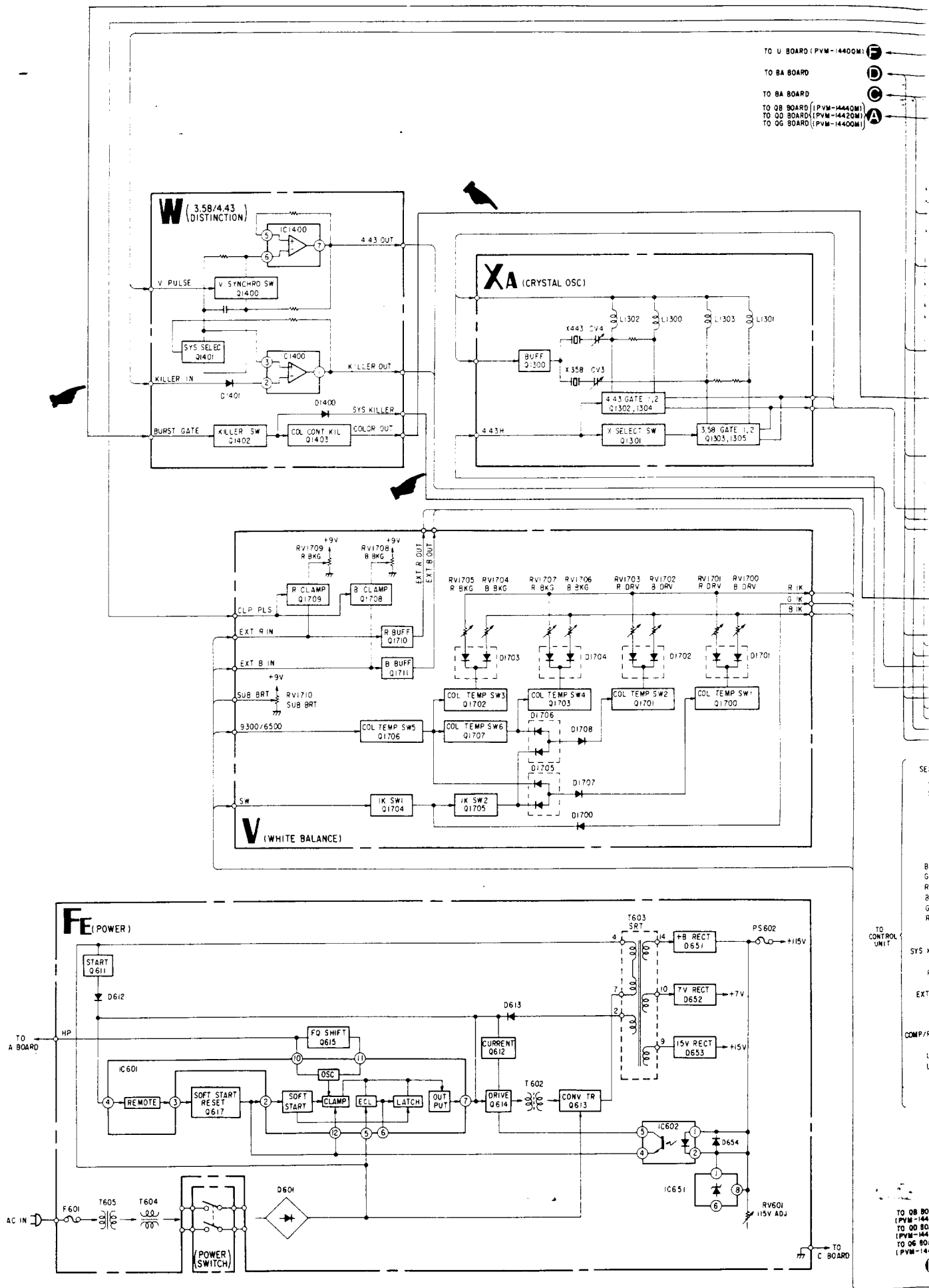
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6-3. Printed Wiring Boards.....	9

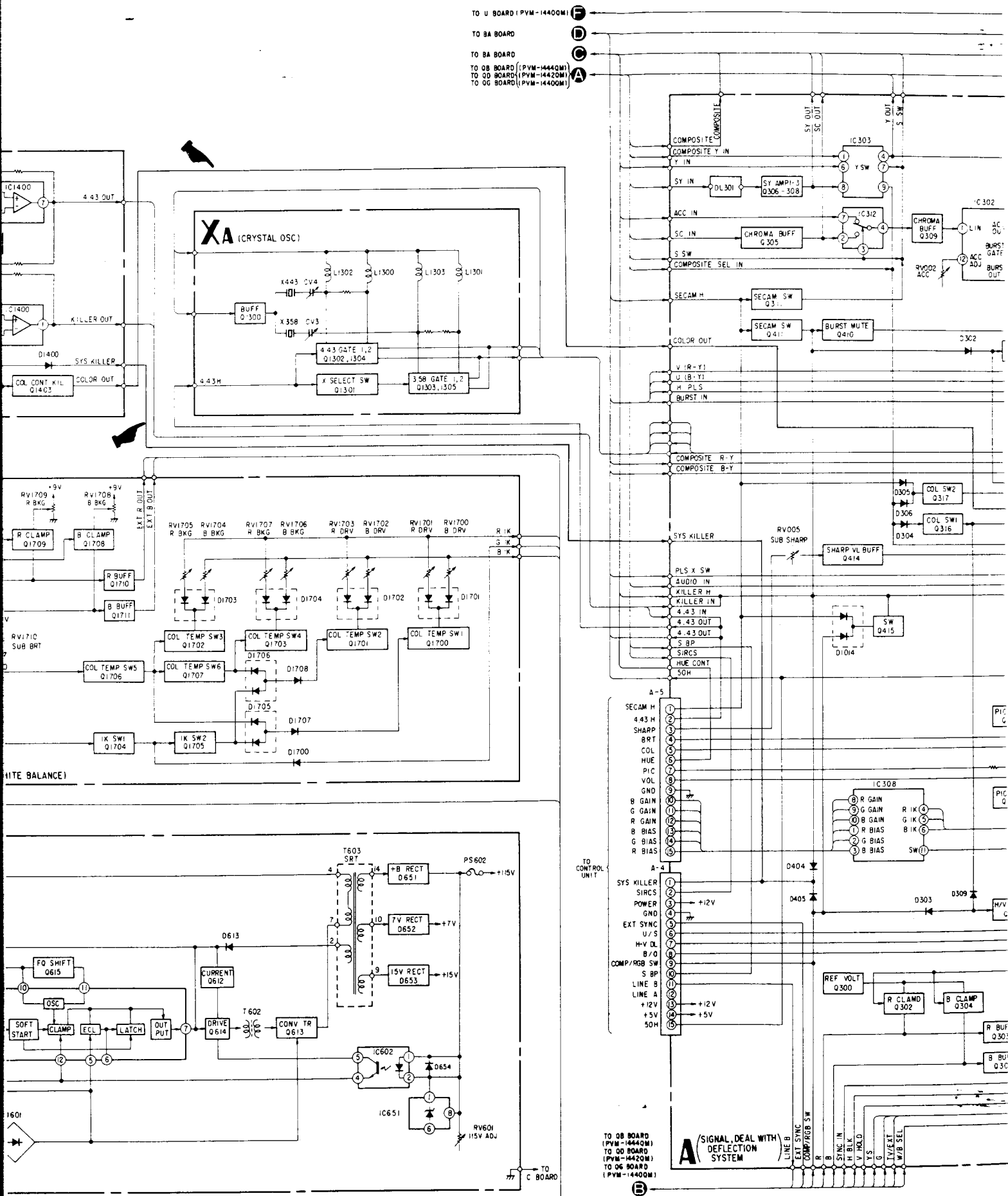
7. EXPLODED VIEWS

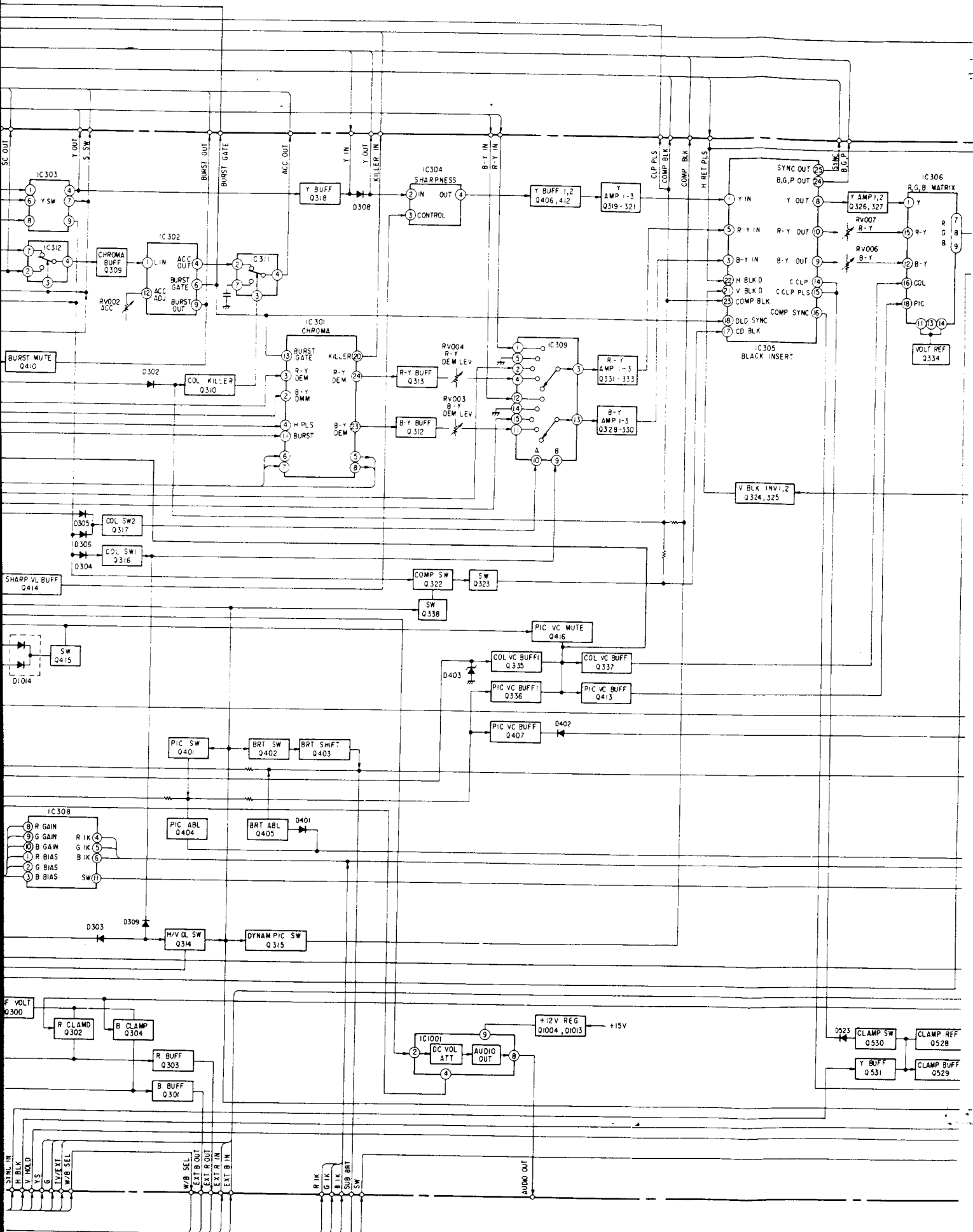
7-1. Chassis.....	11
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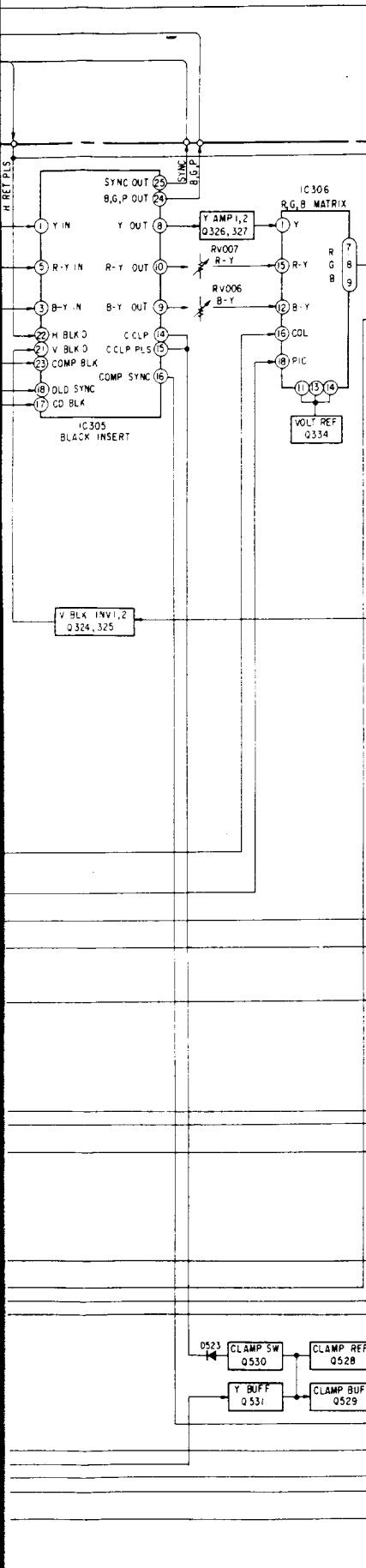
8. ELECTRICAL PARTS LIST..... 12

6-2. BLOCK DIAGRAMS Page 31-32

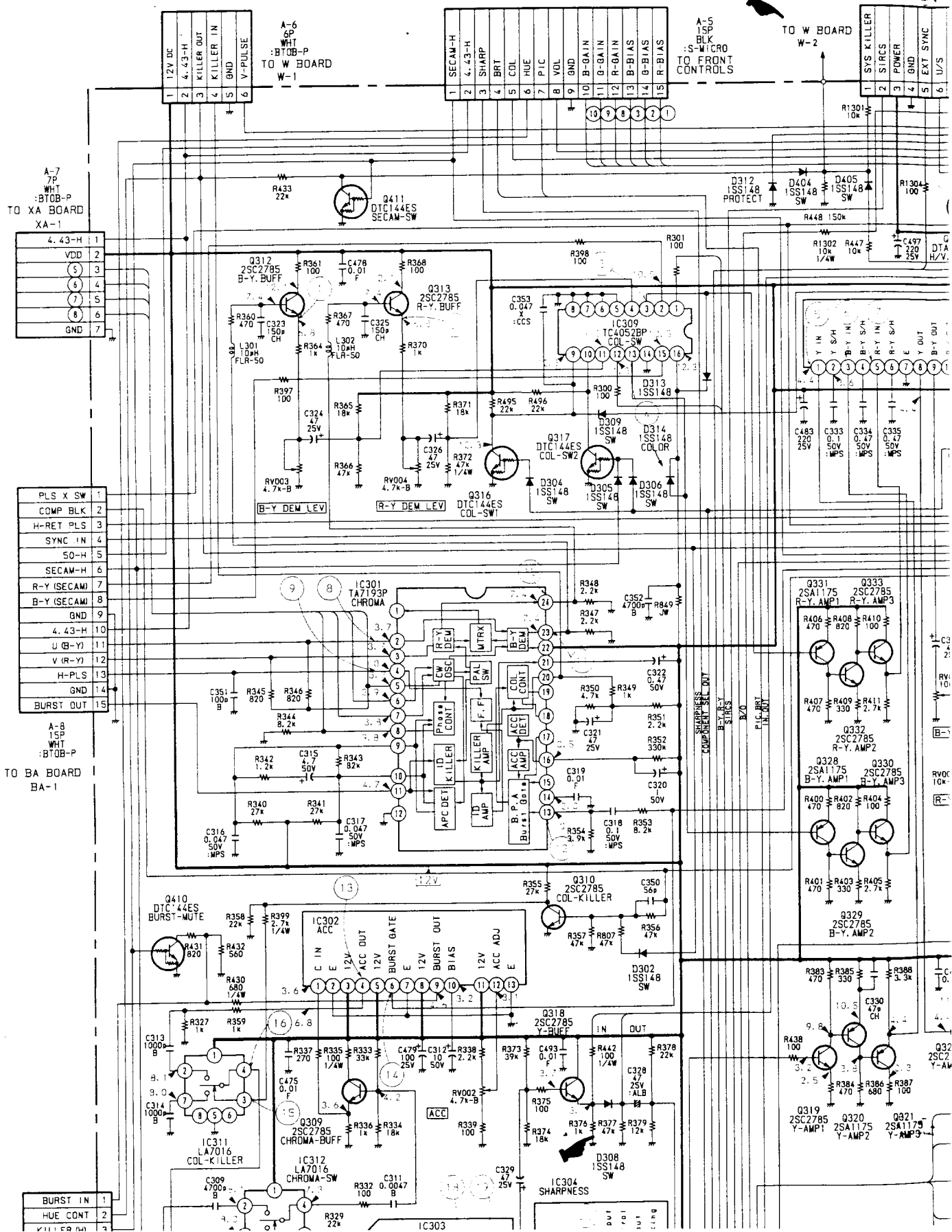








6-5. SCHEMATIC DIAGRAM Page 42-45





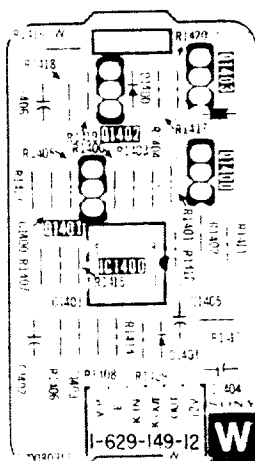
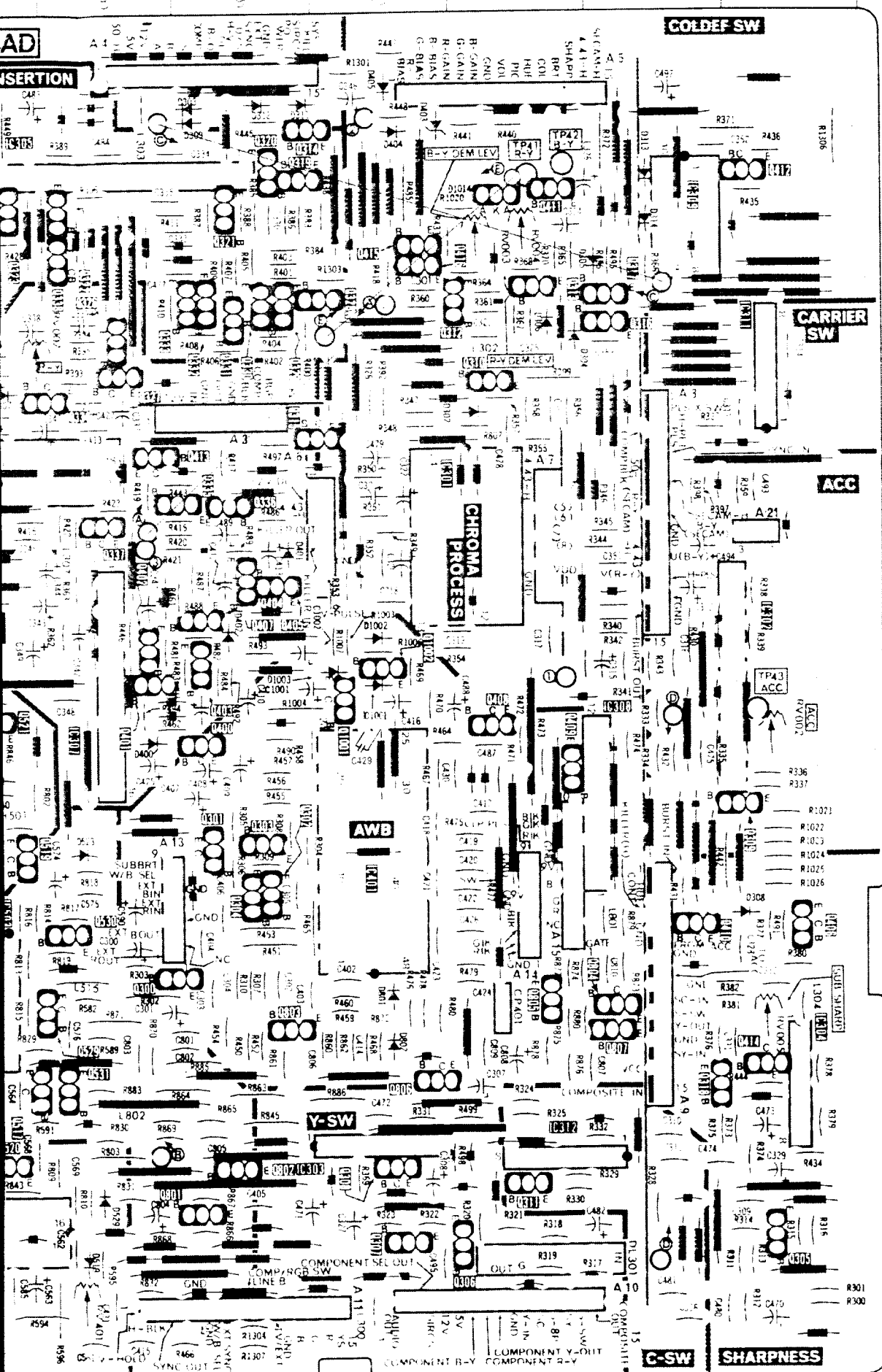
M



The schematic diagram illustrates the internal structure of the CX20125 DYNAM-PIC IC. It features several op-amp blocks: Y-AMP1, Y-AMP2, and Y-OUT-BUFFER. Y-AMP1 and Y-AMP2 are configured as comparators or amplifiers with feedback resistors (R1603, R1601, R1602) and input resistors (R1605, R1606). Y-OUT-BUFFER is a voltage follower. The circuit includes various resistors (R1600, R1601, R1602, R1603, R1604, R1605, R1606, R1607, R1608) and capacitors (C1600, C1603). The IC is powered by a 5V supply (C1607) and has a ground connection (C1603). The output is connected to a 10k resistor (R1610) and a 50V supply (C1603). The diagram also shows the internal structure of the IC, including the 7-pin package and the 12V, 1N, GND, OUT, DUT, C/B, and BOP pins.



— W Board —



7-1. CHASSIS

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
1	△3-704-372-01	HOLDER, HV CABLE		14	*A-1135-564-A	BA BOARD, COMPLETE (PVM-1440QM ONLY)	
2	△1-237-614-12	RESISTOR ASSY, HIGH-VOLTAGE			*A-1135-573-A	BA BOARD, COMPLETE (PVM-1442QM/1444QM ONLY)	
3	*4-391-842-01	BRACKET, HVR		15	*A-1270-249-A	QE BOARD, COMPLETE (PVM-1442QM ONLY)	
4	X-4391-805-1	CABINET ASSY, BOTTOM		16	*A-1270-267-A	QG BOARD, COMPLETE (PVM-1440QM ONLY)	
5	*A-1245-456-A	FE BOARD, COMPLETE			*A-1270-248-A	QD BOARD, COMPLETE (PVM-1442QM ONLY)	
6	*A-1291-616-A	A BOARD, COMPLETE			*A-1270-246-A	QB BOARD, COMPLETE (PVM-1444QM ONLY)	
7	△1-439-395-12	TRANSFORMER ASSY, FLYBACK		17	*A-1270-266-A	QF BOARD, COMPLETE (PVM-1440QM ONLY)	
8	*1-629-149-12	W BOARD			*A-1270-247-A	QC BOARD, COMPLETE (PVM-1442QM ONLY)	
9	*1-629-151-11	XA BOARD			*A-1270-245-A	QA BOARD, COMPLETE (PVM-1444QM ONLY)	
10	*1-629-150-11	Y BOARD		18	4-391-843-32	PLATE, TERMINAL (PVM-1440QM ONLY)	
11	*1-629-148-11	V BOARD			4-391-843-12	PLATE, TERMINAL (PVM-1442QM ONLY)	
12	*1-629-219-11	U BOARD (PVM-1440QM ONLY)			4-391-843-02	PLATE, TERMINAL (PVM-1444QM ONLY)	
				19	*3-682-419-01	HOLDER, P.C.B	

7-2. PICTURE TUBE

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
51	1-466-113-11	CONTROL UNIT (PVM-1440QM ONLY)		66	*4-391-835-01	PLATE (C), SHIELD (PVM-1442QM ONLY)	
	1-466-076-11	CONTROL UNIT (PVM-1442QM ONLY)		67	*4-374-912-01	COVER (MAIN), CV VOL	
	1-466-198-11	CONTROL UNIT (PVM-1444QM ONLY)		68	*4-374-913-01	COVER (REAR LID), CV VOL	
53	1-544-063-11	SPEAKER		69	△1-426-145-13	COIL, DEGAUSSING	
54	4-374-839-11	BUTTON (A)		70	4-307-249-00	SCREW (5), TAPPING	
55	4-391-824-01	JOINT		71	4-391-833-01	CLOTH, PROTECTION	
56	△1-554-967-12	SWITCH, PUSH (AC POWER)(1 KEY)		72	4-391-839-01	COVER, REAR	
57	*4-391-820-01	COVER, AC SWITCH		73	X-4391-810-1	COVER ASSY, TOP	
58	X-4391-804-1	BEZEL ASSY (PVM-1442QM/44QM ONLY)		74	4-391-825-01	RIVET, NYLON	
	X-4391-804-2	BEZEL ASSY (PVM-1440QM ONLY)		75	△4-364-745-01	BUSHING, AC CORD	
59	△8-736-254-05	PICTURE TUBE (A34JHS10X)		76	△1-574-389-12	CORD, POWER	
		(PVM-1440QM ONLY)		77	4-308-870-00	CLIP, LEAD WIRE	
	△8-734-621-05	PICTURE TUBE (M34KBE31X)		78	1-452-032-00	MAGNET, DISK; 10MM φ	
		(PVM-1442QM/1444QM ONLY)		79	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM φ	
60	3-703-961-01	SPACER, DY		80	X-4309-608-0	PERMALLOY ASSY, CONVERGENCE	
61	△1-451-329-11	DEFLECTION YOKE (Y14FZA)		82	*1-629-153-11	J BOARD	
62	*4-382-050-01	BAND, C PC BOARD		83	1-543-604-11	CORE, RING	
64	*A-1330-986-A	C BOARD, COMPLETE		84	4-847-802-11	SCREW (OS), CASE, CLAW	
				85	1-452-277-00	MAGNET BMC	

SECTION 8

ELECTRICAL PARTS LIST

- A BOARD - Page 83

Ref.No.	Part No.	Description	Remark
	*A-1291-616-A	A BOARD, COMPLETE *****	
	*4-329-153-00	HEAT SINK, V OUT	
	*4-341-751-01	EYELET	
	*4-341-752-01	EYELET	
	*4-363-404-00	HOLDER, IC	
	4-363-414-00	SPACER, MICA	

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Ref.No.	Part No.	Description	Remark
R1416	1-249-429-11	CARBON 10K 5% 1/4W	
R1417	1-249-433-11	CARBON 22K 5% 1/4W	
R1418	1-249-439-11	CARBON 68K 5% 1/4W	
R1419	1-249-440-11	CARBON 82K 5% 1/4W	
R1420	1-249-441-11	CARBON 100K 5% 1/4W	
R1421	1-247-881-00	CARBON 120K 5% 1/4W	
<u>CONNECTOR</u>			
W1	*1-565-482-11	CONNECTOR, BOARD TO BOARD 6P	
W2	*1-564-508-31	PLUG, CONNECTOR 5P	

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Ref.No.	Part No.	Description	Remark
R361	1-249-405-11	CARBON 100 5% 1/4W	
R362	1-249-410-11	CARBON 270 5% 1/4W	
R363	1-249-432-11	CARBON 18K 5% 1/4W	
R364	1-249-417-11	CARBON 1K 5% 1/4W	
R365	1-249-432-11	CARBON 18K 5% 1/4W	
R366	1-249-437-11	CARBON 47K 5% 1/4W	
R367	1-249-413-11	CARBON 470 5% 1/4W	
R368	1-249-405-11	CARBON 100 5% 1/4W	
R369	1-249-405-11	CARBON 100 5% 1/4W	
R370	1-249-417-11	CARBON 1K 5% 1/4W	
R371	1-249-432-11	CARBON 18K 5% 1/4W	
R372	1-249-465-11	CARBON 47K 5% 1/4W	
R373	1-249-436-11	CARBON 39K 5% 1/4W	
R374	1-249-432-11	CARBON 18K 5% 1/4W	
R375	1-249-405-11	CARBON 100 5% 1/4W	
R376	1-249-417-11	CARBON 1K 5% 1/4W	
R377	1-249-437-11	CARBON 47K 5% 1/4W	
R378	1-249-433-11	CARBON 22K 5% 1/4W	
R379	1-249-430-11	CARBON 12K 5% 1/4W	
R380	1-249-405-11	CARBON 100 5% 1/4W	

- XA BOARD - Page 93

*1-629-151-11 XA BOARD
*****CAPACITOR

C1300	1-101-005-00	CERAMIC 0.022MF	50V
C1301	1-101-888-00	CERAMIC 68PF 5%	50V
C1302	1-101-884-00	CERAMIC 56PF 5%	50V
C1303	1-102-942-00	CERAMIC 5PF 1PF	50V
C1304	1-102-947-00	CERAMIC 10PF 0.5PF	50V
C1305	1-102-947-00	CERAMIC 10PF 0.5PF	50V
C1306	1-102-951-00	CERAMIC 15PF 5%	50V
C1307	1-102-951-00	CERAMIC 15PF 5%	50V
C1308	1-126-101-11	ELECT 100MF 20%	16V
C1309	1-102-125-00	CERAMIC 0.0047MF 10%	50V

- W BOARD - Page 93

*1-629-149-12 W BOARD
*****CAPACITOR

C1400	1-136-169-00	FILM 0.22MF 5%	50V
C1401	1-136-153-00	FILM 0.01MF 5%	50V
C1402	1-126-101-11	ELECT 100MF 20%	16V
C1403	1-102-074-00	CERAMIC 0.001MF 10%	50V
C1404	1-126-101-11	ELECT 100MF 20%	16V
C1405	1-123-875-11	ELECT 10MF 20%	50V
C1406	1-124-902-00	ELECT 0.47MF 20%	50V